

Accounting Reviews

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LLOYD MOREY

Pricing Exports Under the Foreign Assistance Act of 1948
HARRY HOWELL

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Policy Formation
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CLARENCE F. REIMER

JULY
1948

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the Accounting Review

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TRENDS IN GOVERNMENTAL ACCOUNTING

LLOYD MOREY

GOVERNMENTAL ACCOUNTING in the United States dates back at least to the days of Alexander Hamilton. In fact, certain procedures established by him in the federal fiscal system are still in use. Little of the kind of accounting today recognized as adequate, however, went on prior to 1910. Hence the *history* of the governmental accounting—federal, state, and municipal taken together—may be thought of in terms of the current forty years.

This period may not illogically be divided into four decades, the characteristics of which may be summarized as follows:

1910 ff.—first publication of some basic principles of municipal accounting, and movements for budgetary reform in the states.

1920 ff.—publication of first important writings in the field, and passage of federal Budget and Accounting Act.

1930 ff.—development of standards of municipal accounting and auditing, discussion of and some advancement in federal fiscal organization and procedures, and development of interest of professional accounting organizations in governmental accounting.

1940 ff.—consolidation, interpretation, and improvement of standards, and widespread recognition and application.

The most significant contribution of the 1910 decade was the publication of the *Handbook of Municipal Accounting* by the New York Bureau of Municipal Research. This volume was made possible through a

gift of Herman A. Metz, who as Comptroller of New York had greatly improved the accounting methods of that city. It brought together for the first time many of the basic characteristics and requirements of municipal accounting, and outlined methods of appropriate treatment. The first text or reference book by a private author also was published during this decade: *Municipal Accounting* by DeWitt C. Eggleston. It presents a rather complete program of accounting practice and procedure for a municipality.

During the same period numerous states took steps to establish budget systems and fiscal organizations for budgetary operation and control. Thus the states generally were in advance of the federal government in their progress in this field.

The next period, 1920 on, is significant for the amount and character of important literature on governmental accounting and financial procedures which it produced. Among the distinguished authors contributing to this output were W. F. Willoughby, Francis Oakey, A. E. Buck, and H. P. Seidemann. These scholarly and comprehensive works constituted a basic groundwork for much that was to follow and brought the subject definitely to the fore in the minds of political economists in particular, and to a considerable degree of public officials.

In 1912 the federal Budget and Account-

ing Act was passed. It brought about a major change in the fiscal procedures of the government. In the budget area its provisions proved to be generally sound and productive of good results. In accounting and auditing less satisfactory results were secured, partly because of ineffective provisions of the Act, and partly because of its administration. Thus nearly twenty years of possible progress were largely lost.

The decade beginning in 1930 brought about developments of outstanding importance. The various national organizations of public accountants and public finance officials joined together in forming the National Committee on Municipal Accounting. This committee, after extended study, issued an outline of basic principles of municipal accounting, supplemented by suggested standard forms of financial statements and classifications of accounts.¹ These were later augmented by a manual of procedures for an independent audit.² This material has had tremendous influence on all current thought and action in this and comparable fields, and is likely to stand for a long time as the model for the operations it covers. Preparation of manuals for guidance of cities and other local units in various states has aided in putting these principles into direct application.

In a related field college and university officials through a similar National Committee on Standard Reports evolved basic standards for accounting and reporting of such institutions, which have been accepted by national and regional educational bodies and generally adopted by institutions throughout the country.³

During the same period serious and extended study and discussion took place concerning deficiencies in federal fiscal organization and procedures. Many constructive proposals were offered, most of which were not accepted. Nevertheless attention was focused on needed changes, and some progress was accomplished. The way was paved for more specific improvement to follow.

For about the first time, in this decade, public accountants and schools of accountancy generally began to pay serious attention to governmental accounting. Their organized groups participated actively in the programs related to it. Discussions of the subject became frequent in meetings and periodicals. Problems in institutional and municipal accounting began to appear regularly in accountancy examinations. Schools and colleges in considerable number added special courses on the subject. A major increase in the literature of governmental accounting took place, including the publication of a number of important new books.

The period from 1940 on has been largely an extension of movements inaugurated in the preceding decade. In spite of the war, much progress has taken place in all fields. The proposals of the National Committee on Municipal Accounting were refined and promoted. Wide recognition and acceptance has resulted. This program has had indirect influence on state and county governments, many of which have improved their methods. A steady stream of articles and books on various phases of governmental accounting also has continued.

In the federal government definite improvement has taken place. The changes were prefaced by some searching criticisms of past methods by committees of the American Institute of Accountants and by individuals. The budget program, both as to preparation and control, has been

¹ *Municipal Accounting Statements*, National Committee on Municipal Accounting, Chicago, 1941 (Revised Edition).

² *Municipal Audit Procedure*, 1939.

³ *Financial Reports for Colleges and Universities*, University of Chicago Press, 1935.

greatly strengthened. The most revolutionary and forward-looking change was the addition of a Corporation Audits Division to the General Accounting Office. This Division was headed by a distinguished accountant, T. Coleman Andrews, and manned by experienced public accountants. It introduced accepted methods of auditing into the audits of government corporations. Recently, a Division of Accounting Systems has been added to the Office, also headed by a well-trained accountant, Walter P. Frese, with broad experience in governmental finance.

These developments have been accompanied by and in many respects founded on an increased recognition of the fundamental principles and requirements underlying governmental accounting, as promulgated especially by the National Committee on Municipal Accounting. Among the basic principles now generally accepted are:

- Segregation of accounts relating to each fund or fund group

- Segregation of fixed assets and liabilities from current items

- Inclusion of budgetary control accounts with other necessary accounts of a fund

- Increased use of accrual method of accounting for revenues and expenditures

- Adequate accounting control of consumable and fixed property, on a cost basis except in self-supporting activities.

The need for independent audits also has been stressed and more widely recognized together with procedures comparable to those followed in audits of private business. Greater uniformity and more adequate presentation in financial reports has been emphasized and applied. In auditing and reporting the fundamental principles above outlined are being followed with increasing thoroughness.

It would be impossible without wide research to describe with complete accuracy the *present state* of accounting and reporting in the various classes of public bodies. In the smaller units of government, such

as townships and small school districts, the situation undoubtedly is mixed. About half of the states exercise control over the accounts of local taxing bodies. This results in uniformity though not always adequacy. In the other states both qualities often are lacking, except that state educational officers frequently have more or less control over accounts of school bodies. The tendency to consolidate small school units into larger ones should bring about improved conditions in this field.

County accounting as a rule has been deficient in the past, except as state control has resulted otherwise. Limited observation suggests that county government is improving in general quality. This fact should have a favorable effect on its accounting, and this is already evident in certain places. In many areas, however, there is yet much improvement needed.

Municipal accounting on the average has improved materially in recent years. The recommendations of NCMA have been promoted actively by the Municipal Finance Officers Association, which also implemented them by a number of additional publications and by the work of numerous committees. As a result, cities generally are conscious of standards and are working to overcome deficiencies. Available published reports, however, while generally reflecting these advances, still indicate much to be done to bring municipal accounting as a whole to a fully satisfactory position.

Conditions in state governments vary considerably. State budget preparation and control is well advanced and generally good. In fact, centralized budget control in the states often tends to go too far, handicapping departmental operation and unnecessarily duplicating essential departmental records. However, general accounting and reporting in many states has not kept pace with budget procedure. Relatively few states produce comprehensive and informative balance sheets and oper-

ating statements. Accounting responsibility in the states frequently is scattered, resulting in lack of harmony and coordination in reports of independent officials, and consequent difficulty in securing reliable financial information.

The scope of activities of the federal government is so great and so complex that no single statement can describe the state of its accounting and reporting. Many divisions and departments, particularly the government corporations, must have complete and adequate accounts within their own structures to enable them to operate. A number of these are on a high level of perfection. For the central accounts of the government, so good a word cannot be said. There is, in fact, no consolidated financial accounting or reporting in the full sense of the term. At no place is all basic financial information drawn together in a way that makes possible a single complete picture of the entire government. Accounts are kept in a variety of places, but all for different purposes, on different bases, and showing different results. Much discussion has taken place, many constructive proposals have been offered, and some steps have been taken toward unification and improvement. But little has been accomplished which reflects itself in external reporting. One government accounting officer writes that "Financial and operating reporting in the Federal Government is in a primitive stage."

The most significant development, so far as it is shown in outward evidences, is in the audit procedure for government corporations by the General Accounting Office. In 1945, under authority of Congress, a new division was formed to handle such audits. Congress also provided that the procedures should be those generally followed by public accountants in commercial audits. The results have been highly commendable. The reports issued by the division are based on generally ac-

cepted accounting and auditing standards, and are highly informative and constructive in character. The services of outside certified public accountants also have been used to a considerable extent. Out of eleven reports submitted and published March through August, 1947, six were prepared by three different outside accounting firms.

An example of the change in condition in this respect is found in the recommendation contained in the audit report of the General Accounting Office on the Tennessee Valley Authority for 1945.⁴ In view of the now-existing provision that the audits of such government corporations are to be of the "commercial type," the report recommends that "the requirement that the Authority render accounts to the General Accounting Office under the Budget and Accounting Act of 1921, be repealed." It is greatly to be hoped that the methods thus so successfully applied may influence the Office in also changing its outmoded and cumbersome procedures of centralized detailed voucher audits of transactions of regular government operations.

The situation in the federal government is very well summarized in the report of George P. Ellis, Chairman, Committee on Governmental Accounting, American Institute of Accountants, 1947:

There is a great deal of work yet to be done before these procedures can compare favorably with those of private business, or even of many local governments, but it may be confidently said that there has never been a better prospect of early and far-reaching improvement than there is today. Your committee is convinced that through its work and that of other related committees over the past ten years, the accounting profession has not only made a substantial contribution to the government, but has vastly improved its own prestige.⁵

The Institute has created for 1947-48 a

⁴ Published by Government Printing Office.

⁵ *American Institute of Accountants Yearbook*, New York, 1947.

Committee on Federal Accounting, headed by T. Coleman Andrews (who recently resigned from the Corporation Audits Division headship). This committee is working with the newly-created Commission on Organization of the Executive Branch headed by Herbert Hoover.

In the fields of instruction and practice the subject of governmental accounting has become more generally recognized. In many schools one or more separate courses are given. In a few institutions both undergraduate and graduate work is offered specially in the field. Very few public accountants are now completely lacking in some knowledge of its peculiarities, or are unaware of the sources of information for special guidance in case service in this area is called for. It must be recognized that such service still is a relatively small part of the practice of the majority of accounting firms, and that only a few specialize in it to any great extent.

What are some of the *unfilled needs* of governmental accounting and what may accountants and accounting teachers do to meet them?

There is no longer any doubt as to what constitutes good accounting, reporting, and auditing for public bodies. The work of the National Committee on Municipal Accounting in particular, in establishing standards and models in these subjects, provides an authority to which officials, accountants, and public may turn with confidence. Like any other body of standards, these materials need to be constantly re-examined as to their continuing validity. Currently this is being done with much intensity in the field of private business. The same should apply continuously in governmental procedures. Among the questions which may be asked are:

1. Is the terminology best suited for informing the reading public as to its true meaning? Take for example the term "surplus"; is it a suitable term; if not, what should

replace it?

2. Is the term "balance sheet" the best title for the statement to which it is applied? Is the statement arranged in the manner best fitted to bring out the important facts it presents?
3. Admitting that governmental finance is more than ordinarily complex, may the accounts and statements nevertheless be further simplified without violating essential principles?
4. Are classifications applied to revenues and expenditures the best adapted to present an informative picture of operations?
5. How may the benefits of cost accounting, so vital in private business, be realized more fully in publicly operated activities?

Improved principles and procedures, however, are of little effect unless they are supplemented by adequate and informative reporting. The published annual report constitutes the most common and generally-used medium for this purpose, so far as reporting to the public is concerned. For a clear statement of the needs and largely unrealized possibilities in this respect, the writer cannot do better than to quote from an address of E. Earl Bryson, formerly Mayor of Winnetka, Illinois, also an advertising specialist with wide experience in the investment field:

Municipal officials can take a lesson from business in the matter of annual reports. Corporation reports, ten years ago or perhaps less, were about in the same state of development as municipal reports are today. With few exceptions, they gave a minimum of information, and made no effort to invite reading, and little to promote understanding. If any justification might be offered for their dullness and drabness, it might rest on the fact that management had not yet sensed the great change which had been gradually developing in the character and number of their stockholders.

The modern company report, where management is alert and competent, is a model of completeness and often a thing of beauty, worthy of a permanent place in one's files or even of passing on to others to enjoy. It is inviting to the eye, easy to read, and easy to understand. It utilizes maps, charts, and pictures both for clarity and embellishment. It is written in simple, understandable language. It is well printed, expertly designed, using

good materials and good sense to achieve the goal toward which it strives—that of being read and understood. Its purpose is both to inform and to sell—to make the stockholders satisfied with their investment, and perhaps to increase their holdings.

The citizens of your community are its stockholders, you are its management. You have the same duty and opportunity to report fully, interestingly, and frankly as the management of a well run private enterprise. Your duty is today greater than ever before because more of the people's money is going into your hands, and they have the right, as they have the desire, to know where their money is going and how it is being used. The annual report thus becomes one of the administration's most important messages, and one of its most useful. It makes for better understanding of what the problems of the community are and how they are being met.⁶

Not a few public bodies are learning the benefits of this method of reporting. The future should see the ever-widening spread of its use. Many times it will be practicable to prepare and give broad circulation to a condensed, pictorial report in "popular" form, giving the basic financial facts, and to supplement it by a more complete report containing all financial statements and supporting data essential for publication and for permanent record.

Records and reports also call for verification as well as appraisal through independent examinations. To this end the accountant should take an interest in and establish his competence for audits, installations, and special investigations of governmental bodies. There can be no question but that the services of competent and experienced accountants are needed in these ways to a greater extent than they are being used. Public bodies in substantial numbers continue to be in need of accounting systems better adapted to their needs and conforming more fully to accepted principles. Many of them have inadequate or incomplete audits or none at all.

⁶ "Publicizing the People's Business," *Illinois Municipal Review*, Springfield, Illinois, July, 1947.

While much good work is done in this field, some public audits have not been of a nature to inspire confidence of the bodies served. Yet the accountants have not been completely to blame. The method of choosing auditors by the competitive bid system will not attract many of the best accountants and will not insure best results for the agency involved. Inadequate allowances for audit services have made it impossible for capable firms to accept such engagements. Public bodies, while paying well for certain professional services and often generously for construction work and purchases, have failed to realize the worth of professional accounting services.

With the tremendous growth of public service and of tax revenues, a widespread need and opportunity exists for adequate and competent independent audits of public bodies, supplementing internal audit programs where these are feasible. It is to be hoped that through improved knowledge on the part of accountants, and increased recognition of their value and worth by public officials, the latter more generally will seek the services of capable and experienced practitioners.

To these ends adequate *training* and *testing* become of the greatest significance. Reference already has been made briefly to the fact that accounting for public bodies involves numerous special problems and considerations. To be suitably prepared for work in this field an accountant must have a fundamental knowledge of its requirements gained by suitable study and training. Until a few years ago very few colleges and universities provided courses or even reference to the subject of governmental accounting. Now the great majority of these institutions provide such training. For persons who do not have opportunity to take advantage of such courses or wish to increase their acquaintance with this field, an ample supply of excellent reference literature is now available. If ac-

countants and accounting students are to be prepared for the opportunities that exist in this area, a study of such material is essential.

The time is past when an adequate preparation for the practice of accountancy in its broadest aspects in any of its many fields can be wisely undertaken without sound academic training. Many accountants who have not had such training, have succeeded and prospered and have been a credit to their profession. They have overcome the handicap by experience and by native ability. No longer can dependence be placed upon these methods. If accountancy is a profession it must be prepared for in the same manner as other professions of high standing. A well-rounded preparation in accountancy will include a reasonable knowledge of the peculiar problems of governmental accounting.

Of equal importance is the scope and character of the material by which an individual is tested as to his preparation for professional service. For that reason the content of CPA examinations is a matter of real importance. A comprehensive examination should include a reasonable amount of reference to public and institutional accounting, always maintaining, of course, a proper balance in the various fields which such an examination must cover. In recent years the majority of CPA examinations have included one or more questions or problems in governmental accounting, so that now no candidate for the CPA certificate can safely undertake to sit at one of these examinations without a reasonable understanding of this subject. The American Institute of Accountants is to be commended for the policy it is following in this respect.

Yet it is perfectly possible to have excellent accounting systems installed by competent accountants and to have the advice of well-trained accountants with respect to principles and procedures and

still fail to have continuously satisfactory results from this system unless *competent personnel* is maintained to operate it.

"Personnel administration," said the Committee on Administrative Management in the Federal Government, "lies at the very core of administrative management. The effective conduct of the work of the Government depends upon the men and women who serve it. Improved plans for governmental organization and management are of little value unless simultaneous recognition is given to the need for attracting, retaining, and developing human capacity in the public service."⁷

For that reason, unless persons of suitable training and experience varying with the responsibility of the position they hold are chosen to fill accounting positions, satisfactory results cannot be achieved however good the system itself may be. The task of keeping and supervising the accounts of governmental bodies is often more involved than in a private business of similar size. The necessity of segregation of funds and of budgetary control exists in every unit of government. Failure to understand and recognize these requirements may, as often in the past, result in inaccurate and inadequate information and lead to erroneous actions on the part of officials and legislative bodies and make it impossible for the public to obtain information as to the way in which their affairs have been handled. Problems of accounting and finance in government today require the application of technical skill in all ranges of responsibility from subordinate bookkeeping positions to those of a supervisory character.

Much is yet to be done to see that laws and regulations provide necessary qualifications for persons taking positions of accounting responsibility. Too often persons

⁷ Report of Committee on Administrative Management, U. S. Government Printing Office, 1937.

without training or experience secure by appointment or by election positions carrying such responsibilities. This condition does not prevail in the other professions such as medicine, law, engineering, and architecture. Few persons would dare aspire to a major legal post of a state or even a moderate-sized city without adequate legal training and experience. Accountants should seek to establish accountancy in public service on the same level as other professions. Positions with major responsibility over accounting, whether filled by election or appointment, should be filled only by persons having adequate training and experience, indicated by a CPA certificate or equivalent and suitable professional standing and experience in accountancy. Election or appointment to any such position on a partisan political basis without regard for technical qualifications should be vigorously opposed.

In past years accounting positions in government have not been generally attractive to well trained accountants. Most of these persons, as well as their teachers and advisers, felt that better opportunities for constructive service and advancement lay in employment with private business concerns or with public accountants. The objections to public employment are growing steadily less, and the opportunities in such service, while not equal to the maxi-

mum possibilities in business, nevertheless are becoming better and more attractive. Persons of good training and integrity are greatly needed in the public service. Only as they are encouraged to enter public service and do so, can the highest needs of accounting be satisfied.

Accounting for the fifty billions of tax revenues and at least an equal amount of other receipts of the more than 150,000 units of government in the United States represents a task of major proportions and importance. Splendid advancement has been made in establishing basic principles for such accounting. Much progress has been made toward bringing about application of these principles and implementing them by modern procedures and mechanisms. Much more is still to be done, however, before universally acceptable results are achieved. Accountants and teachers of accounting have a major responsibility, both as citizens and as informed professional people, for carrying forward this important work to the fullest possible perfection, by refining principles and procedures, by assisting in installations and audits, by training new personnel and interesting them in such work, and by aiding in the production of informative financial reports. The highest public interest is served by such efforts.

PRICING OF EXPORTS UNDER THE FOREIGN ASSISTANCE ACT OF 1948¹

H. E. HOWELL

THE ULTIMATE objective underlying the plans for the re-establishment of economic stability in Europe, South America, and China will be lost if the United States of America, in the course of making these great efforts, fails to maintain the essentials of a sound economy for itself. In our concept of a sound economy there is a place only for the most limited controls.

The production and shipment of reconstruction supplies is the primary objective of these plans for aid. But in the long run it is of greater importance to demonstrate to the countries we aid that it is possible to bring about this great out-pouring of production without adopting the methods and procedures of a state-controlled operation. The United States faces the hard and difficult task of drawing heavily on its production and resources while at the same time exemplifying the capacity of free institutions to meet the material wants of the world. There has been for centuries in the countries of Western Europe a deep-seated conviction in the rights of the individual as opposed to the power of the state. It is the purpose of these plans to re-vitalize and strengthen that conviction, at the same time that we assist in rehabilitating their economy. To do this not only the supplies but the example must be furnished.

Strained and stressed as the economy already is from the transitions from wartime status to peacetime operation, two major factors now enter the picture, each one of which by itself can have a profound and

decisive effect upon the course of our economy. These factors are, first of all, what is popularly known as the European Recovery Program, or the Marshall Plan, or, what properly speaking, is the "Foreign Assistance Act of 1948" providing aid to sixteen countries in Europe, Western Germany, military aid to Turkey and Greece and aid to China. The second factor is the re-armament program, the immediate effect of which is reflected in the vast increases requested for the budgets of the defense agencies.

It is not so much a question of these projects absorbing a *major portion* of the productive capacity, as the fact that in combination with domestic trade *all* capacity, certainly of the basic industries, will be absorbed. So far as prices are concerned, it means that that additional production which might have increased the supply of goods for domestic use over the demand will be indefinitely postponed. It means a continuance of the sellers' market and a pricing of products, unless some restraint is used, on the theory of selling a short supply to the highest bidder.

PRICING POLICIES

We are concerned here with that aspect of the problem of maintaining a sound economy which is affected by pricing policies, and in particular with the effect of certain cost concepts on pricing policies.

Lest it be thought that this aspect is anything but a segment of the problem of maintaining a sound economy, it must be said that the answer lies in other directions for many phases of the problem. For example, where the productive capacity not only is insufficient to handle these new bur-

¹ A paper presented at the Second Annual Michigan Cost Accounting Conference, April 10, 1948, Ann Arbor, Michigan.

dens but was proved to be insufficient to handle the needs of the last war, or even those of the post-war domestic economy, nothing that can be done in relation to costing and pricing will correct the distortions created by a permanent under-supply. It became clear during the war that the steel industry did not have enough capacity and in spite of post-war expansion, placed at 1.7 billion dollars (all of which was not in producing facilities), it is already clear that there is insufficient capacity to handle the requirements. Similar situations undoubtedly exist in such items as petroleum products, agricultural equipment, freight cars, nitrogen fertilizer, carbon black, and in many categories of farm products, in particular, wheat. It will be recalled that the needs of the European Governments as requested by the Paris Committee were substantially reduced by the United States and one of the considerations was a conviction that an attempt to supply the full requirements would place too great a strain on domestic economy.

Pricing policies are an effect and not a cause in such situations and the first step in maintaining a free economy and avoiding controls is to expand production facilities in those industries where they are insufficient so as to make unnecessary the reinstatement of allocations, priorities, and similar measures. Another illustration of where the cost factor is not a controlling element in price, is where the production is lost through labor friction. A strike no longer has a localized effect—the productive capacity made idle is just as effectively removed from the armory of weapons with which the United States must protect its economy as if it were destroyed by enemy action. To a layman, the situation presented in the disputes causing strikes in the last two years presented no insoluble problems when divorced from the ambitions and whims of a few publicity-seeking personalities. To avoid those labor and man-

power controls which are earmarks of a totalitarian state, this problem must be met and solved without delay.

However, we are concerned particularly with problems of pricing as they relate to factors under direct control of management. Some years ago it used to be customary to engage in long debates on the effect of costs on prices and how to compute costs so as to establish prices. For some time now those interested in costs have been more realistic as to the manner in which prices are established. Managements, by permitting rigidity in the pricing system, have limited the areas in which competitive striving for business or cost are the dominant pricing factors. For example, a major consideration for any seller of a competitive product is the anticipated reaction to a given price policy of his competitors. Too often these anticipated effects result in a self-imposed restraint on the part of an individual company so that they do not use their own judgement, whether based upon cost data or not, in the setting of prices. Rather, they prefer to reflect that unanimity of pricing policy, which while voluntary, produces results quite similar to those which might have been arrived at by agreement or collusion.

It is sometimes difficult to understand what one has to do "for competitive reasons." We have recently seen a price increase, justified not on the basis of any facts arising within the concern itself, but solely on the basis that it was necessary "for competitive reasons" to follow the lead of another company. Another method whereby management has introduced dangerous rigidities in the pricing structure is the selling of products against list prices which remain fixed for many years and for which price variations are reflected by a group discount, or in rare cases, an individual item discount. It is true that invariable list prices make permanent catalogues possible and they simplify costing, billing,

and pricing. However, they become harmful when they remain unchanged long after the basic factors upon which they were compiled have, themselves, changed to such an extent that they cannot be compensated for by the adjustment of the group discount. In the original compilation certain assumptions had to be made as to manufacturing processes and cost, volume of production, relationship of demand for one item as against others and the relationship of the labor, material and overhead elements of cost. Ordinarily the discount is geared to the change in some basic element, such as the price of pig iron. Technological advances reflected in new manufacturing processes, the increased weight of the labor components of costs, and the drastic change of these original assumptions cannot be reflected readily by simple adjustments in the discount.

Since NRA, what used to be called "price competition," always unpopular, has become almost immoral. In attempting to cure the effects of cut-throat price competition great impetus and a sort of moral sanctity was given to arrangements which went far in the opposite direction. The National Recovery Act attempted to set floors under prices and to define unreasonable competition as sales at prices below these levels. It implicitly gave support to concerted action in "rectifying" price schedules, and, because controls on unreasonable prices were not placed at the other end of the scale, it promoted the development of formulae for rigid pricing. Some of these prices, based on high cost estimates loaded with contingencies and a pessimistic estimate of the volume over which fixed and constant charges should be absorbed, achieved such a following that not only was the potential peacetime market restricted, but they were applied later to a war demand far exceeding the productive capacity then existing. The grossly excessive profits that resulted necessitated the

use of renegotiation, repricing, and excess profits taxes to accomplish what a little independent action on the part of the individual concern in setting prices, excluding the willful profiteer, might substantially have done with greater ease and less expense.

Somewhere between the extremes of rigid and controlled prices and cut-throat prices there is the field of free and fluid prices determined and established after appraisal by the individual business of its potential market, its cost at varying levels of production, and its capacity and its financial strength. This is the type of price economy (if some over-simplification is permitted for purposes of clarity), in which a system of free enterprise operates as opposed to cartel operation on the one hand, and government regulation of prices on the other.

All of the foregoing still leaves the policy of establishing prices with the cost concept as the primary factor as a major contribution or factor in maintaining economic stability. There must be a real attempt to restore the initiative of responsible management to establish for themselves their own prices which will maximize their net returns over the largest volume possible. It means a return to the courage of those industrial leaders who, acting upon their own knowledge and judgment in setting prices, brought about the great expansion of American industry.

THE PLACE OF COST ACCOUNTING

In contemplating the lack of initiative in the establishment of real competitive prices one cannot escape the conviction that cost accounting has not done its full share in providing the information which would permit the business executive to analyze correctly the effect of alternative policies. Business, after all, is a matter of constantly making decisions; decisions which result in more or less volume of sales, more

or less production, more or less costs, more or less returns per unit. To a large measure the businessman must make an appraisal or forecast of many factors for the ensuing period and from his cost accounting system he is entitled to get the basic data from which he can, with reasonable safety, calculate the outcome of any proposed course of action. The tremendous advance in the acceptance of cost accounting by business in the last twenty years and the accomplishments made through its techniques in the control of costs has made the businessman more reluctant to discard the information given to him by his cost department and to revert to what used to be called "horse sense" or "Yankee trading instinct"—or whatever term it was that implied that he used his own good instinct—before his cost department made him so scientific that these natural instincts became dulled. It is not suggested that businessmen revert entirely to natural instincts in the control of their operations because business today is too highly complex and interrelated and it is difficult enough to make sound judgments when all the facts are presented.

The burden, therefore, seems to be upon those responsible for the cost accounting. Why are cost accountants not providing the necessary information? The first reason is their failure to realize that there is no single concept of cost that will serve all purposes. Secondly, some cost accountants, while vaguely realizing that no single concept will serve all purposes, nevertheless concentrate so much on the determination of unit cost for financial accounting purposes that they neglect other concepts for operative purposes. In so doing they do not provide the necessary analyses for the synthesis of cost upon some other concept nor undertake these separate studies.

It is possible that the functions of the cost-accounting system may be considered to have been fulfilled when it produces the means for financial accounting, namely, a

unit cost which will permit the transfer of production into inventory and the costing of sales, in such a way that both the profit and loss statement and the balance sheet meet the requirements of good financial accounting. Most of us would say that that was not enough and that there should be such a system of costs, possibly predetermined standard costs, as would enable the business to control expenditures at the source and to channel and confine them within courses predetermined by management.

The proposition advanced here is that without a third purpose the cost accounting system is inadequate. This purpose must be to provide management with sufficient data to determine the differential cost of any group of products and to forecast accurately the effect of the adoption of alternative policies. This purpose might be said to be paramount. I have been maintaining as my major thesis that management must deliberately make decisions on pricing based upon their own knowledge of their operations. In a free economy no other method can be used. If management is to make these decisions intelligently it must have differential cost data. The differential cost of an item is represented by the difference between the total accumulated costs of the production including the item and the total accumulated costs of production excluding it. The concept of the differential cost is familiar to economists who think of it as the cost of producing the marginal unit. Included in this concept is the proposition that there is a body of costs which exists regardless of whether or not there is any production at all. This body of costs is sometimes termed "cost of standing ready to produce." This concept also includes the idea that this body of costs is only absorbed as each item is sold and then to the extent of the plus factor represented by the difference between the selling price and the differential

cost of that item. It follows that under this theory no profit can begin to accrue until such time as the sum total of these plus factors is equal to the amount of the cost of standing ready to produce.

We have said that business decisions usually involve the acceptance or rejection of alternatives. They may involve the rejection or taking of an order; cutting the price on a single order; making a price cut in a competitive market; raising prices; expending additional amounts for promotion of sales to keep the plant running; increasing or curtailing, or abandoning production facilities; and many similar decisions of vital importance to the company. Unless the cost system provides the fundamental data compiled in such a way as to meet the differential-cost concept, it is not possible to provide the information necessary to judge accurately the effect of any given alternative. In order to provide cost data that management can use to determine differential costs, the data should be compiled under at least four classifications.

COST CLASSIFICATION

The first classification is *Fixed Costs*. These are costs to which the concern is committed as a going enterprise whether it produces anything or not. It includes such *current* expenditure costs and accruals as rentals, interest on funded debt, property taxes, franchise taxes, and other taxes not based on income, employment, or production. It includes such *non-current* expenditure costs as some types of depreciation, obsolescence, amortization, certain types of insurance costs, contingency reserves and allowances, provisions for pension funds not specifically funded, and similar items. The significance of the division of fixed costs into the two categories of current expenditure costs and accruals and non-current expenditure costs, the latter representing those costs which may

not mature, which may be long deferred and some which are recoveries of sunk costs, is that for competitive reasons the management may wish to include or exclude any of these elements in the determination of the differential cost of any particular group of products, at any given time, or in reference to any proposed transaction. In other words, the proposition is made that the recovery of certain costs in the selling price is a management function and not a cost-accounting problem. It is admitted that the failure to recover in the long run all costs will result in the business ceasing to operate as a going concern, but this is not equivalent to saying that the precise cost accounting or arithmetical allocation shall be recovered on each item and on each sale.

Such exclusions are particularly important if they concern eliminating "costs" raised by the debatable practice of depreciating on "replacement" values, depreciating (!) fully-depreciated property, making arbitrary write-offs against income, and similar efforts designed to force the current consumer to provide a hedge against all possible capital impairments past, present or future.

The second classification is *Constant Costs*. There are several definitions of constant costs, and the items included vary with the definition. As used here it means that group of costs of a going concern which remains very largely independent of the volume of business—yet are not as rigid as the previously described fixed costs. There would be included current expenditure and accrual costs such as the basic management group, fixed power costs, maintenance to prevent deterioration, and the cost of the minimum supervisory technical, and skilled personnel group. Among the non-current expenditures would be included the routine depreciation charge, certain amortization, obsolescence, tax and insurance costs and

similar items. The failure to recover this type of costs means that the concern sooner or later will cease to exist as a going enterprise, but again this does not mean that because these costs are allocated in a uniform manner to the cost of a product that they necessarily have to be recovered in that identical manner in the selling price of that product. Some things are matters of management policy rather than cost accounting. These include the decision as to the manner in which these costs shall be recouped and when they may be dropped, and the exercise of discrimination in forcing some products to carry more of the load than allocation on the theory of casual responsibility would justify (for example, charging what the traffic will bear).

The third classification is *Semi-Variable Costs*. This is one of the most difficult classifications of costs because much estimating and forecasting are needed to determine the successive changes. Budgets (in many cases best compiled by statistical method) are needed for all the levels of productive capacity from start of full one-shift operation and through to the maximum possible utilization of the plant. It will be found that these expenses stay constant through certain wide ranges of production levels, then move sharply upward. On a chart they characteristically show as a series of steps and plateaus. A simple illustration is in cost of supervision. It may be found that one foreman is needed when production requires from one up to twenty workmen: after twenty an assistant foreman is needed, and the two men may be able to handle up to fifty men. It will be seen that this would appear on the chart as a series of steps, and the critical point of decision is where production spills over to these higher semi-variable cost levels. Under ordinary historical cost methods the differential cost of this additional production is obscured because the cost is spread

evenly over all the units. On the chart it appears as a straight line—i.e. identical cost per unit. If the relatively much higher cost of these additional units of production were known, much expansion of facilities, high pressure selling, and advertising might be related to a definite profit objective or abandoned. With a full exposure of all the factors, the management can decide how far along the next plateau of cost the anticipated additional production must run to justify the gamble and the increased immobility.

The fourth classification is *Variable Costs*. These are the costs that vary in direct relation, or at least in very close approximation, to the fluctuations in the volume of production, the volume of shipments, and the volume of sales. Material costs, piece-work, labor rates, supply items, clerical costs, packing, shipping, and freight costs are typical.

It must be obvious to every one by now that the four classifications of costs here (and by many others) suggested—fixed, constant, semi-variable, and variable are merely arbitrary divisions of costs that range from those that are absolutely fixed to those that are completely variable. No clear demarcation exists between these categories and considerable judgment must be used in classifying costs. It is my experience that four classifications are sufficient for management purposes. It would be possible for some management to operate with less, or in some highly integrated industries far more categories of cost would be useful. Only actual practice can determine the useful classification of costs. In addition, actual practice will show that costs shift from one category to another often as a result of positive management actions. That is to say fixed costs under some circumstances can be shifted to constant or semi-variable costs by positive operating action of management, or variable costs may shift so as to become more rigid.

Some types of wage agreements, for example, might well justify classifying as a constant cost an item rarely considered as other than variable.

DIFFERENTIAL COSTS

With differential costs, defined as the difference between the sum total of costs for total production with the item in question included and with it excluded, it will be seen that differential costs include all of the variable costs and might include some of the semi-variable costs and some of the constant costs depending upon management decisions. It is also possible that it would include some of the fixed costs as, for example, in a case where the contemplated additional production necessitates plant expansion and financing. This means that there is room for positive management decision relating to the factors revealed by differential costing which cannot be the result merely of automatic arithmetic. In an economy in which prices are really competitive, management must consider all of the elements that enter into differential costs and must make those decisions which in their judgment will maximize their net return. This may mean the inclusion or exclusion of specific cost elements in the selling price and doing this without in any way disturbing the ordinary flow of cost as compiled for financial statement purposes.

Essentially the task of compiling differential cost studies is not one for the regular accounting department or for those members of the accounting department engaged in the preparation of routine reports. It is rather the task of a "cost economist," one who can study figures for operations covering considerable periods of time, one who can make various syntheses of results under a variety of alternatives. It is not the type of work that can be turned out on a mass-production schedule basis. But the compilation of the basic data, and particularly the grouping by categories and

classifications which we have suggested, can be done in the regular course of operations and then re-compiled or re-arranged to permit the compilation of costs in accordance with some other concept, such as that needed for the costing of inventory.

It is not possible to discuss all the ramifications of differential cost or the use to which such studies might be put. The scope is as inexhaustible as a businessman's ingenuity in planning for his business. The main purpose of this address is to point out that the fullest possible development of this concept is necessary if businessmen are to be provided with information which will permit them to price their products realistically.

MANAGERIAL RESPONSIBILITY

Even though we are going into a sellers' market and it will be easy to auction to the highest bidder, we must proceed on the assumption that our business leaders have the long-range view in mind. It is true that it is sometimes difficult to retain long-range objectives when one's salary or one's pension is directly geared to the accumulation of profits within a given period. Even if the management should forget the long-range view, the stockholders who realize that this year's excessive profits may have been instrumental in deteriorating the purchasing power of their surplus will see to it that the policies of management are not so deficient in business statesmanship. If sound information is supplied but not used, the institution of controls and regulatory measures is a far different thing than if regulation arises from lack of information. Within the limitations imposed by government, management has the responsibility for establishing prices that will maintain a stable and free economy. That is, prices must be based on the judgment of management, a judgment that is resultant of experience gained in production and distribution. American business

is now presented with a major opportunity to exercise this responsibility. It will come from the business which will result from the operation of the Marshall Plan. In pricing goods for export under the Marshall Plan it is essential that full recognition be given to the concept of differential costing. If, as has been often stated, price rigidities and competitive practices make it unlikely that realistic pricing will exist in the domestic market, the export market should be freed from these restraints. The volume of domestic business is sufficient to carry American business well beyond the break-even point. In many cases, domestic business and its price structure is protected by a formidable barrier of tariffs, yet as profits pile up there is a natural disinclination to disturb the happy state of things. There must be created among businessmen a sense of awareness that unrealistic pricing may bring about the restoration of controls and of excess profit taxes. It has become a truism to say that management has a social responsibility but this does not detract from the essential truth of that statement. Management has the responsibility of maximizing its net profit and should establish those prices that will, in its judgment, yield the largest net return *but* it also has the responsibility of maximizing physical output. Under present world conditions it is obvious that the stability of our type of economy depends on supplying adequate physical quantities of necessary supplies for export as well as for the domestic market.

It would be desirable if the price reductions possible through maximum utilization of facilities and consequent full or over-absorption of fixed and constant costs were shared by domestic and foreign consumers alike. It might be argued that to give the benefit of the very much lower prices to be derived from the application of this principle solely to the goods exported under the Marshall Plan is to dis-

criminate against the domestic consumer. That argument loses force when it is realized that the domestic consumer is paying in the form of taxes for the exported goods. In any event, the point is that while a full sharing of the benefits of price reduction is eminently desirable it should not be denied on the specious argument that it discriminates against the domestic consumer if the cost of his purchases cannot be reduced along with the cost of his taxes.

After all, cost accounting is a business discipline. Businessmen have a right to expect that cost accounting will produce the information they need for all aspects of cost work. Because this problem is immediately upon us, because it is most grave and because the information which is now buried in the cost records can be so such vital importance to the maintenance of sound economy in this country and the restoration of the economies of those countries which are to be aided by America I would propose a plan which each member of the cost-accounting profession can undertake as his contribution.

First, where the cost system is a so-called "actual" cost system, he should classify the costs in a way that provides the material for differential costing and, at the same time, permits the computation of some standard basis for the absorption of fixed and constant costs so that prices may be adjusted as soon as it becomes apparent that these fixed and constant costs are going to be absorbed.

Second, those who are operating standard cost systems should immediately review the bases for the absorption of fixed and constant costs and semi-variable overheads and adjust them so as to absorb them over more realistic estimates of potential volume. Further, current routine reports should be set up to reflect the over-absorptions (variance account credits) as they accumulate, not only for manufacturing costs but for selling and administrative costs as well. Such reports covering both long range and short periods will enable the management to determine the extent to which price adjustments are required to avoid unexpected transfers to the profit account.

Third, all cost-accounting systems should be

so adjusted as to compile the basic elements necessary for the compilation of differential costs. Further, the function of the cost economist should be definitely recognized and appropriate studies undertaken to determine the effects of alternative policies in relation to demand, production, costs and prices.

The democratic process, of which a sound and free economy is a vital part, is a nice problem of balance between authority and license, between freedom and con-

trol, between regulatory impositions and self-restraint. To enable this balance to be maintained there must be (among other things) intelligent decisions by businessmen based on a steady continuous stream of information. If these decisions carry into effect in pricing policies the facts disclosed by differential costing then a major contribution to the control of inflation will be made and at the same time the ultimate objective of the Marshall Plan assured.

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STATISTICAL USE OF ACCOUNTING INFORMATION IN FEDERAL ECONOMIC POLICY FORMATION

WILLIAM W. COOPER

INTRODUCTION

THE PURPOSE of this paper is to discuss recent developments in the statistical utilization of accounting data by the federal government. In particular, attention will be focused on the statistical utilization of accounting information for what may be called "top-policy" purposes. Most accountants are familiar to some extent with the utilization of accounting data by various federal agencies for direct administrative purposes. In the administration of tax laws and for regulatory bodies, accounting data have proved indispensable for handling individual cases.¹ Moreover, most accountants are probably familiar with the fact that individual case information is frequently compiled into statistical information as a means of orienting agency policy, setting standards, and serving as a basis for recommendations to the Congress.

At times information collected for administrative purposes is combined with data from other sources for purposes of analysis and recommendations looking toward the formulation of policies for grappling with problems affecting large sections of the economy. Frequently it has been necessary to gather supplementary information beyond that required and already secured for administrative purposes. In

some cases the statistics which could be prepared from the files of administrative agencies have proved so unsatisfactory that it has been necessary to devise a statistical collection which would of itself serve the purpose at hand.

Such statistical collections have, for the most part, been confined to a single collection designed to aid in the solution of a particular problem. With the assumption of federal responsibility for maintaining full and stable employment, the growth of interest in promoting and encouraging small business, and the attempt to place the antimonopoly programs on a more systematic basis than reliance on complaints, it has become necessary to provide for continuing and current statistics on business operations. Federal activities in this direction have grown rapidly since the war. It is with the statistical compilation of accounting data for such general economic analysis and policy formation that the present article will be most concerned.

DEFICIENCIES IN ACCOUNTING STATISTICS

There have been three major defects in our knowledge of business financial operations: (1) lack of currency; (2) lack of coverage (a) of important items and (b) of important areas; and (3) lack of reliability in data secured. Each of these items must be viewed in terms of economics, accounting, and statistics before criteria of satisfactoriness can be established—and achieved. Administrative feasibility, both from the point of view of the collecting agencies and the suppliers of information

¹ During the recent war accounting information was utilized extensively in this fashion for various phases of the procurement and stabilization programs. For an extended discussion of these uses see E. L. Kohler and W. W. Cooper "Costs, Prices and Profits—Accounting in the War Program," *THE ACCOUNTING REVIEW*, July, 1945, pp. 1-42.

must, of course, weigh heavily in all program considerations. The deficiencies in our knowledge of what has been and is happening in the small business area have been particularly conspicuous and difficult to repair: The number of organizations to be covered is large and diverse; the high birth and death rates of small business result in a constantly shifting universe which makes comparisons and interpretations of trends difficult; record-keeping practices are inadequate and diverse. Despite the difficulty, these problems must be solved. Small business is an important area of policy decisions in its own right, and it is an important component of any over-all analysis of the economy.²

BUREAU OF INTERNAL REVENUE DATA

Analysis of existing sources of information and the procedures evolved for solving some of these difficulties may be of interest. The most extensive source of business financial information is the Bureau of Internal Revenue. Figures from tax returns

covering the entire business universe are published annually in *Statistics of Income*. Reliance on these series has, however, certain shortcomings. One of the most important and difficult to overcome is the tardiness with which data from this source are made available. From two to three years elapse before data are processed and published, and the administrative burden of tax collection work makes it unlikely that this work can be speeded up to any considerable extent.

As a means of overcoming this defect, the Bureau of Internal Revenue has recently begun experiments with the use of statistical methods for estimating totals from samples.³ Tax returns are filed ini-

² In addition to expediting current work, the use of such techniques also makes it possible to process and estimate totals for details which would otherwise be costly to obtain. With a carefully designed sample of a few thousand returns it is possible to estimate, with a surprising (and measurable) degree of accuracy, the results which would have been obtained if several hundred thousand (in some cases several million) returns were processed. Under certain very practical conditions the results may be more accurate with samples. When the work is confined to a few thousand selected corporations it is possible, for example, to treat the reports with a degree of care that would be impossible if several hundred thousand returns were processed.

The program now under way in the Bureau consists of samples of (1) approximately 15,000 corporation returns with total assets under \$250,000 and income between plus and minus \$25,000, covering the years 1944 through 1950; (2) 250,000 sole proprietorships; (3) a sample consisting of all partnership returns reporting income in excess of \$100,000 plus 10 per cent of all partnerships reporting less than this amount; and (4) 5,000 small corporations from current year returns.

Part (4), the current sample of 5,000 small corporations, is discussed above. The purpose of (1), covering 4 per cent of the total estimated population of 300,000 corporations in this group, is to obtain a great deal of information on items not normally compiled and published. Practically every item on the return is to be analyzed, adjusted and tabulated. Since the sample is restricted to matched companies for six years, and will be classified into smaller groups than is usual, it will be possible to obtain additional insight into trends in this business area. By maintaining strict control over the constituent companies which enter into the sample it will be possible to study in detail the factors affecting natality and mortality in small business. Trends of balance-sheet and profit-and-loss items will afford information which has hitherto not been available. This information will not be made public until some time after 1950, when the work is completed.

The parts of the program encompassed in (2) and (3) for sole proprietorships and partnerships are part of a

³ There is no absolute definition of small business. "A number of definitions have been advanced at various times," as J. C. Dockeray, in a paper presented at a meeting of the American Statistical Association, noted, "... the Department of Commerce has thought of a business unit as small when it is a retailer with \$50,000 or less in annual net sales, a wholesaler with \$200,000 or less in annual net sales, or a manufacturer with 250 or fewer employees on an annual average. The Civilian Production Administration regarded a business as small when it employed 250 or fewer workers and grossed \$250,000 or less in annual sales. The Reconstruction Finance Corporation thinks of a business as small when its typical loan is under \$100,000. The size of firms in this class is usually about 31 employees. . . . The Smaller War Plants Corporation defined a small war plant as one employing 500 or fewer employees (which would have included 95 per cent or more of all firms); while some economists go so far as to establish the dividing point as \$1,000,000 in assets, or any business other than the largest in a given industry. For the sake of variety, we might mention Thurman Arnold's definition: 'Any business which can't afford a Washington office'; or a financier's definition: 'Any business that can't use the capital markets.'"

One possible solution to these problems would be the discovery of high correlations between the more important measures. It is impossible, of course, to provide one definition that will serve all purposes but a satisfactory system of classifying the data into fine enough groupings will cover most requirements of subsequent users.

tially with the field offices where they are subject to audit and adjustment and serve as the basis of negotiation and enforcement. It is obviously undesirable to hold this work in abeyance for the purpose of securing statistical information. With the use of sampling techniques, however, it is possible to draw a small list of companies, the reports of which can be forwarded to the central statistical office with a minimum of interference to work routines in field offices.

An immediate difficulty in the utilization of this approach for current estimating purposes resulted from delayed and fiscal year filings. Fiscal-year returns may not be filed in some cases until six to nine months after the close of the calendar year for which estimates are desired. This tardiness is accentuated by the granting of extensions which result in further delays so that a year or more may elapse before the complete list is available for estimating purposes. (In any well-designed sample a certain proportion of such companies are almost certain to be included in the list.) Analysis indicated, however, that delayed and fiscal-year filings were confined, for the most part, to larger concerns and to particular industries. Many of these companies, however, are required to file reports with the Securities and Exchange Commission. SEC reports, when properly ad-

justed, could thus be combined with the companies available at the Bureau of Internal Revenue for estimating purposes. Access to this supplementary source of information has also made it possible for the Bureau of Internal Revenue to restrict its sample to firms with asset sizes of \$5,000,000 or less and hence extend its coverage in the small business universe.

Although these data will prove valuable in increasing the reliability of current estimates, particularly in the area of small business, they are of doubtful validity when used independently. Their primary use will be to serve as supplements to increase the reliability of estimates obtained from other sources. For this reason the data, as such, will never be publicly released except as the information is utilized for the improvement of other series. Moreover, for purposes of achieving the greatest possible currency and reliability of coverage this series is restricted to six items of information of paramount importance, mostly revolving around tax and net income information—although two balance-sheet categories (cash and total assets) are also included. There is an additional reason for confining this information to internal federal use. Many of the items reported to the Bureau of Internal Revenue do not follow standard accounting classifications. Despite wide variations in individual cases, however, comparisons with other series show, when the data are aggregated, that no significant differences in results occur in many items. Fortunately the all-important category, annual net income, falls within this class of satisfactory items for all industries except those with large amount of wasting assets.

At best this source of information is restricted to an inadequate number of items from annual reports. The data are available some six to eight months after the end of the calendar year to which they apply, and administrative difficulties make

more inclusive sample of individual tax returns. These data will be published from time to time as supplements to *Statistics of Income*. Since the sample is designed for one-year coverage it will not be possible to use this information for the isolation of factors covering business birth, growth, and death. Moreover, the absence of balance-sheet information on sole-proprietorship returns makes it impossible to analyze financial status. Since 1946 an abbreviated balance sheet and certain supplementary information concerning partners' capital contribution, family relationship, and per cent of time spent in the business have been added to the partnership return. This information will be tabulated and should prove useful in studies of tax avoidance and the response of organizational forms to changing tax laws. Finer classifications by industry, size group, and geographical units, as well as information on entrepreneurial withdrawals and salaries will provide further information of value.

it seem unlikely that much improvement can be effected. Valuable as these data are, it thus becomes necessary to turn to other sources to provide more adequate and current information for policy purposes.

JOINT PROGRAM OF FEDERAL TRADE
COMMISSION AND SECURITIES AND
EXCHANGE COMMISSION

The Federal Trade and Securities and Exchange Commissions have jointly undertaken responsibility for supplying estimates of financial and operating results of business activity. The needed *currency* is obtained through the use of quarterly returns. Procedures have been evolved for rapid processing to secure *timeliness* in the release of information. Further expedition in reporting and processing is obtained by stripping the quarterly report to the bare minimum of items necessary to secure comparability. To secure more adequate coverage and more accurate adjustment of reported items the quarterly report is to be supplemented by a more detailed annual report form.

These three criteria, *currency*, *timeliness*, and *adequacy* of coverage (both of firms and items) conflict with each other to some extent. Adequacy of coverage in the large, diverse, and unstable area of small business requires a fairly large sample. This in turn increases the difficulty of meeting the criteria of timeliness and currency. To decrease the error in estimates of net profits for manufacturing corporations with total assets under \$250,000 from five per cent to one per cent for example, requires an increase of sample size in this segment from approximately 1,000 to nearly 17,000 concerns. Greater currency could be secured from monthly collections and tabulations but this would result in twelve collection programs; the multiplication of work would interfere seriously with timeliness unless adequacy of coverage⁴ were sacrificed. Coverage of more de-

tailed items would increase the burden on business and add to the work of auditing, tabulation, and estimation.

As noted above, the resolution of these conflicts has been effected by the use of a quarterly form restricted to the most important items which are of direct interest, accompanied only by such ancillary information (such as an abbreviated reconciliation of surplus) necessary to secure the bare minimum of comparability. The more detailed (and hence more slowly processed) annual report will provide information on many items (such as the components of cost of goods sold, wage and payroll data) which it was thought advisable to eliminate from the quarterly form in the interests of economy and timeliness. Supplementary information contained in the analysis of reserves and surplus accounts, tax adjustments, etc., will also prove useful in effecting adjustments of the quarterly reports. These adjustments will be undertaken once a year and corrected quarterly estimates will then be released. Users of the information will thus have available both current and improved estimates. At the same time the more detailed annual figures, with more extensive coverage published in finer groupings, will be available for those persons who wish to undertake analyses of particular areas and items.

This program is now under way as far as the quarterly estimates are concerned and the information is available on request from either the Federal Trade Commission or Securities and Exchange Commission.⁵ At present the program is restricted to manufacturing corporations although it is

⁴ I.e., coverage of both items and organizations. If fewer items are obtained (and less care exercised in processing) more organizations may be covered, and *vice versa*, within the given limits of time and personnel available.

⁵ *Quarterly Industrial Financial Report Series For All United States Manufacturing Corporations*. An analysis of the sample design may be also obtained on request.

hoped to extend the coverage shortly to all major segments of the business economy—mining, construction, and the wholesale and retail and service trades, and to unincorporated as well as incorporated enterprises. Extension of the program to these areas as well as the use of the more detailed annual report awaits only Congressional approval.

It is unnecessary to analyze in detail the sampling plan utilized since such a discussion is available in the first report released by the two Commissions. The sample, containing reports from approximately 5,000 manufacturing corporations, was designed to reduce the statistical error of estimate in the aggregate net profit figure to approximately three per cent. Since net profit is one of the most unstable items, this ensures that most of the other reported items will have an even smaller error.⁶ This should prove satisfactory for the quarterly reports which, it will be remembered, are confined to items of major interest. Two difficulties will arise, however, in the annual data with respect to what might be called "small" and "rare" items. The two categories bear a close relationship to one another since many firms will in practice combine a small item with some other more important category. Bad-debt expense may, for example, be so small in some lines of business that it is included under "other selling expense." In such cases this "small" item would become "rare." Even where disclosed separately however, trouble may arise. For if the business concerns included in the sample make even small dollar changes in these items from time to time these results will be magnified many times

in the estimating process. In the case of rare items it may well happen that none of the companies in the sample include the item in their activities, although such activities do in fact occur in the industry. Rental or agency income in manufacturing industry may be taken as examples of rare items. Earnings and expenses from such activities are rare but not unknown in manufacturing. For many industry groups none of the companies included in the sample may receive such income. As a result, the estimating cells in such industry and size groups will contain zeros in these categories and hence a zero will result in the final estimate even though some firms in the industry may receive such income. If reliable estimates of such items are desired two courses may be followed:⁷ (1) the sample, the form and processing procedures may be redesigned for the specific purpose of obtaining reliable estimates of these items or (2) the present sample may be expanded to ensure adequate representation. The first course may involve sacrifice in the reliability of estimates of more important items; the second course involves a great increase in expense. (The problem involved is not unlike the planning of an audit of sufficient scope to include an inspection of an adequate number of all small or rare transactions.) To date no satisfactory solution of these problems has been evolved.

Accountants may be concerned with another aspect of the estimates. In some cases a profit may be made from one quarter to the next with a dividend distribution smaller than the amount of reported profit; despite this net addition, the earned surplus account for the succeeding quarter may show a *decrease*. This results (in part)

⁶ I.e., the more an item is likely to fluctuate from firm to firm and time to time the greater the coverage necessary to achieve a given degree of accuracy. If all firms in a given time interval had the same profit, for example, a sample of one firm would be sufficient for estimating purposes.

⁷ It may seem that small and rare items can be safely ignored. But what is small and rare in one industry may be large and common in another. Reliable estimates would thus require combining the few sectors where the item is large with the numerous sectors where it is small.

from the estimating procedure used in which sample weights (the reciprocal of the proportion of companies included in the sample to the total number in the universe) are used as multipliers for the data obtained from reporting companies in order to estimate universe totals. The divergences result from the fact that these estimates are subject to statistical errors of estimation. This discrepancy can be resolved by focusing attention on *changes* in surplus from one quarter to another; companies which consistently report for any two successive quarters would be "chained" as a means of estimating changes. In other words estimates would be obtained of changes from one quarter to the next rather than of levels of income or surplus.⁸ To date no decision has been reached on whether it is more desirable to estimate changes or to estimate levels. The problem is of some importance since a relatively small dollar error in the estimate of a large earned surplus figure may result in

a relatively large dollar error in the small *change* in earned surplus. Some users of the data, such as the Federal Reserve Board which applies the information for aggregate sources-and-uses-of-funds analyses as a basis for forecasting activities in the capital markets, would prefer more accurate estimates of changes; other users, interested primarily in the amount of "buffer" the business community has available to withstand economic shocks and reversals, seem to be inclined toward estimates of levels. Perhaps the difficulties may be resolved by continuing the present estimating procedures, which are simpler than the use of chain methods, and effecting backward adjustments and reconciliation of *changes* and *levels* when the more detailed annual data become available.

FIELD AND CASE STUDIES

The Federal Trade Commission expects to utilize this information in its revised program on trade practices and the growth of monopoly. These data will serve both as economic background for the computation of concentration ratios (percentage of total industrial and regional sales, assets, etc.) and as current indices of trouble spots in the economy. Within these trouble spots the Commission expects to make case studies through field investigation. In these field studies it will be possible to obtain detailed cost information, which cannot be secured through mail questionnaires,⁹ as well as a great deal of qualitative information which is not appropriate in a general statistical program.

The use of periodic field studies also affords an opportunity for dealing with the problems raised by the lack of orderly systems of records and reports in small busi-

⁸ The following hypothetical example may be used to illustrate the point. Suppose that in a particular quarter the *level* of surplus for a particular segment is estimated at \$1,000,000,000 with an error of 1 per cent. The "true" figure for the level of surplus in this quarter is thus probably between \$990,000,000 and \$1,010,000,000. In the next quarter the estimate of the level of surplus is again \$1,000,000,000 and the error 1 per cent. The probable *change* in surplus, which is thus arrived at as a residual, lies between minus \$20,000,000 and plus \$20,000,000. (This "directional" uncertainty means, for example, that it is impossible to determine whether the item was an application or a source of funds.)

It may seem strange that both quarters should result in profit estimates in excess of dividends (and other surplus charges) without change in the *level* of surplus. In part this may be accounted for by changing composition of the sample. If a firm which reported in the first quarter goes out of business at the end of that quarter it may be replaced by another company with a different *level* of surplus. This process of substitution can be controlled so that the estimates may be confined to a given range of error. But a choice may have to be made as to which item should be estimated directly. For example, if only companies which reported for two successive quarters are included, the *changes* may be estimated with given accuracy. This means, however, that it is not possible to effect the necessary adjustments for changes in composition of the business population during the current quarter. It would, of course, be possible to estimate both *changes* and *levels* each quarter, but this would delay the work and multiply the expense.

⁹ Lack of standards of practice in cost accounting and the elastic and vague meanings that attach to many cost accounting terms makes it generally undesirable to obtain such information except through careful and extensive field studies.

ness, both as a means of obtaining additional substantive information and for revising the sample to correct for biases.

If properly designed, field studies will also provide detailed information on product costs, selling and discount practices, wage and management withdrawal practices and purchasing policies which will furnish greater insight into such questions as relative efficiency of various sizes of firms and assist in isolating causal factors lying behind the financial results. Through careful studies of such items as production and selling and purchasing practices, in selected industries at periodic intervals, we may even gain knowledge on such questions as the efficacy of a policy which seeks to foster competition through encouragement of small business. The program of aggregate quarterly and annual financial statistics will provide current information on conditions; the field studies will provide an opportunity for detailed study of the causes which have produced these results.

CONCLUSION

In a sense these recent developments in business financial statistics represent extensions of accounting to new areas of great importance. These extensions require the development of new techniques and point of view, and it is hoped that the instrumentalities of classification and analysis made possible by accounting will gain in the process. Full utilization of the potentialities of accounting will occur, however, only if accountants can be persuaded to take a continuing interest in these developments and to acquire the necessary familiarity with the problems involved to adapt their techniques to the requirements. It is not necessary to raise questions of precedence between accounting, economics, and statistics; in this field there is an opportunity for fruitful contribution

on the part of all three disciplines to the solution of important problems of public policy and to the steady advancement of knowledge. The possibility of contributing to either or both of these fields constitutes a challenge which the profession should willingly accept.

Plans have gone forward for the utilization of the great quantities of accounting information collected by the war agencies. Some of the results of this work have already been released.¹⁰ The Federal Trade Commission has recently completed the processing of detailed financial data for 4,000 to 5,000 matched manufacturing companies covering the years 1941 through 1945 on the basis of information collected by the Office of Price Administration. These data have been released by the Federal Trade Commission in two series,¹¹ *Reports on Wartime Costs and Profits for Manufacturing Corporations 1941 to 1945*, and contain much information not elsewhere available. The Office of Temporary Controls has completed tabulation and analysis of cost information in selected industries from OPA files. These reports, covering cost and sales data for some twenty-seven selected industries, are now publicly available from the Superintendent of Documents in Washington.¹²

Additional information is available in the procurement and renegotiation files of the military agencies. To date, however, no plans exist for assembling and releasing this information.

¹⁰ For discussion of other types of federal accounting statistics see the author's chapter, "Accounting Statistics," in *Government Statistics for Business Use*, P. M. Hauser and W. R. Leonard, ed. (New York: John Wiley and Sons, 1946.)

¹¹ Available on request from the Federal Trade Commission.

¹² *OPA Economic Data Series*. For a list of the studies released to date see "Survey of Lumber Manufacturers, Summary of Operating Data by Species," *Report No. 27* in the series.

STATISTICAL DATA ON DEPRECIATION BASES

W. K. PIERPONT

AS A RESULT of the drastic rise in construction costs in the past few years and the expectation of a continuation of a high level of prices, it is not surprising that there is considerable discussion today on the problem of the basis to be used for the depreciation of plant assets. Since the problem is discussed elsewhere with respect to its theoretical aspects, its technical accounting aspects, and its effect on managerial decisions, no attempt will be made here to review those aspects of the problem. This article is devoted instead to the presentation of a series of data showing in a statistical manner the precise nature of the problem. To limit the problem, only depreciation of building cost is considered.

The data included herein are taken from the records of a number of residence halls for men and women students at the University of Michigan. A residence hall's operation studied from the point of view of this problem provides interesting data because the following considerations, all pertinent to a thorough study of depreciation bases, are involved:

- (1) Residence halls built at various periods of time with different construction costs
- (2) Residence halls under central management with an analysis of operations by individual halls to determine the operating results of each hall
- (3) Revenue rates for room and board substantially the same for all halls
- (4) Salary and wage rates the same for all halls
- (5) Food prices the same for all halls

The considerations noted above establish as clear a case of *ceteris paribus* with respect to depreciation based on cost as is generally found in economic statistical data.

Table I contains the basic data in the study, the year of construction, the building cost the capacity per hall, and the construction cost per student housed.

TABLE I
RESIDENCE HALLS DATA

Residence	Year of Construction or Purchase	Building Cost	Capacity Per Hall	Building Cost Per Student Housed
1	1915	\$ 80,600	79	\$1,020
2	1920	173,100	81	2,137
3	1921	17,000	23	739
4	1921	8,000	14	571
5	1926	16,000	16	1,000
6	1930	797,500	427	1,868
7	1933	32,400	58	559
8	1939	1,605,500	932	1,723
9	1939	251,600	139	\$1,810
10	1940	838,900	397	2,113
11	1940	863,500	376	2,297
12	1946	21,600	16	1,350
13	1947	1,927,771	527	3,658

Table II shows the annual expense per student housed for depreciation, assuming depreciation based on cost at 1½% per year.

TABLE II
DEPRECIATION EXPENSE PER STUDENT BASED ON ORIGINAL COST

Residence Hall	Building Cost Per Student Housed	Depreciation Expense Per Student/Year
1	\$1,020	\$15.30
2	2,137	32.06
3	739	11.09
4	571	8.57
5	1,000	15.00
6	1,868	28.02
7	559	8.39
8	1,723	25.85
9	1,810	27.15
10	2,113	31.70
11	2,297	34.46
12	1,350	20.25
13	3,658	54.87

The depreciation expense per student per year shown in Table II varies so widely that a noticeable effect on comparative operating results of the several halls will be obtained from accruing depreciation on a cost basis. Especially is this the case when it is remembered that revenue rates, salary and wage rates, and food prices, the three major items in a residence hall operating statement, are essentially the same for all halls.

The information shown in Table II has resulted in a further analysis of the basis for building depreciation. Table III shows a construction cost index for the years 1915-1947 and Table IV contains a comparison of original cost and adjusted cost using an index of 350 for adjustment purposes.¹

TABLE III
CONSTRUCTION COST INDEX²

Year	Construction Cost Index	Year	Construction Cost Index
1915	93	1932	157
1916	130	1933	170
1917	181	1934	198
1918	189	1935	196
1919	198	1936	206
1920	251	1937	235
1921	202	1938	236
1922	175	1939	236
1923	214	1940	242
1924	215	1941	258
1925	207	1942	278
1926	208	1943	291
1927	206	1944	299
1928	207	1945	309
1929	207	1946	315
1930	203	1947 (Jan.)	391
1931	181	1947 (Dec.)	435

The use of construction cost indices to adjust original cost data to current costs is a commonly suggested method and its

effect on depreciation expense may be noted by comparing the last columns of Tables II and IV. This comparison shows that the use of an index-adjusted cost for depreciation purposes will increase the depreciation expense each year but it does not eliminate sizeable differences in depreciation expenses among the halls and it may not place the depreciation expense of all halls on a current cost basis.

In the case of residence halls, there is available an alternative method which not only reflects depreciation on a current cost level but eliminates expense differences which are not under the control of the management of each hall. This method uses a current cost per student housed.³ In this method, as in the use of construction cost data, it is necessary to select a figure for current cost and for the purposes of this article a cost of \$3,500 per student housed is used. Table V compares original building cost and adjusted building cost based on a cost of \$3,500 per student housed.

The establishment of a standard charge of \$52.50 per student per year for building depreciation expense may seem to lend an air of artificiality to the accruing of depreciation. On the other hand, accruing depreciation for residence halls may be considered as a means of maintaining student housing capacities rather than as a recovery of original costs for income determination purposes. With a drastic rise in construction costs, the recovery only of original costs results in a dissipation of housing capacities.⁴ To take Residence Hall No. 1 as an example, assuming the hall is torn down and replaced at the end of 66 and $\frac{2}{3}$ years, there would have been

¹ An index of 350 assumes a drop in the current index of about one-sixth to a stable post World War II level. This drop is roughly that which occurred after World War I. Whether such a drop occurs, of course, depends on several factors, the productivity of labor, the level of employment, the availability of materials, etc.

² *Engineering News Record*, 1913=100.

³ This base may reflect local costs more closely than a national construction cost index.

⁴ It may be argued that there is not a dissipation of housing capacities so much as there is a partially free use of housing capacities by the present generation of students.

TABLE IV
ADJUSTED BUILDING COST AND ADJUSTED DEPRECIATION EXPENSE PER STUDENT
BASED ON AN INDEX OF 350

Residence Hall	Original Building Cost	Adjusted Building Cost ^a	Adjusted Depr. Expense/Year ^a	Adj. Depr. Expense Per Student/Year
1	\$ 80,600	\$ 303,333	\$ 4,550	\$57.59
2	173,100	241,374	3,620	44.70
3	17,000	29,455	441	19.21
4	8,000	13,861	207	14.85
5	16,000	26,903	403	25.24
6	797,500	1,375,000	20,625	48.30
7	32,400	66,705	1,000	17.25
8	1,605,500	2,381,038	35,715	38.32
9	251,600	373,135	5,597	40.27
10	838,900	1,213,285	18,199	45.84
11	863,500	1,248,863	18,732	49.82
12	21,600	21,538	323	20.19
13	1,927,771	1,674,242	25,113	47.65

TABLE V
ADJUSTED BUILDING COST AND ADJUSTED DEPRECIATION EXPENSE PER STUDENT
BASED ON \$3500 COST PER STUDENT HOUSED

Residence Hall	Original Building Cost	Adjusted Building Cost ¹	Adjusted Depr. Expense/Year ^a	Adj. Depr. Expense Per Student/Year
1	\$ 80,600	\$ 276,500	\$ 4,148	\$52.50
2	173,100	283,500	4,253	"
3	17,000	80,500	1,208	"
4	8,000	49,000	735	"
5	16,000	56,000	840	"
6	797,500	1,494,500	22,418	"
7	32,400	203,000	3,045	"
8	1,605,500	3,262,000	48,930	"
9	251,600	486,500	7,298	"
10	838,900	1,389,500	20,843	"
11	863,500	1,316,000	19,840	"
12	21,600	56,000	840	"
13	1,927,771	1,844,500	27,688	"

TABLE VI
COMPARISON OF DEPRECIATION EXPENSE PER STUDENT
PER YEAR ON VARIOUS BASES

Residence Hall	Based on Original Cost	Based on Index-adjusted Cost	Based on Current Student Housed Cost
1	\$15.30	\$57.59	\$52.50
2	32.06	44.70	"
3	11.09	19.21	"
4	8.57	14.85	"
5	15.00	25.24	"
6	28.02	48.30	"
7	8.39	17.25	"
8	25.85	38.32	"
9	27.15	40.27	"
10	31.70	45.84	"
11	34.46	49.82	"
12	20.25	20.19	"
13	54.87	47.65	"

accrued \$80,600 in a depreciation reserve. Assuming this reserve to have been funded and a cost of construction of \$3,500 per student housed, the \$80,600 would build a hall for 23 students instead of 79.

To summarize the data presented above, Table VI compares depreciation expense per student per year based on original cost, an index-adjusted cost, and a current cost per student housed.

^a Based on original cost with an adjustment to an index of 350.

¹ Based on 1½ per cent rate on adjusted building cost.

² Based on a \$3500 cost per student housed.

³ Based on 1½ per cent per year on adjusted cost.

SOME ACCOUNTING ASPECTS OF THE TAX EXEMPTION FOR FARMERS' COOPERATIVES

MARTIN L. BLACK, JR.

THE PRIMARY BENEFITS accruing to farmers' cooperatives are the right to exemption from federal income taxes (and, formerly, capital stock taxes) and the right to use the bank for cooperatives. Several federal statutes define and describe the prerequisites for these benefits. The most important of these provisions is found in Section 101 of the internal-revenue code dealing with exempt organizations and, more specifically, paragraph 12 which provides:

Farmers', fruit growers', or like associations organized and operated on a cooperative basis (a) for the purpose of marketing the products of members or other producers, and turning back to them the proceeds of sales, less the necessary marketing expenses, on the basis of either the quantity or the value of the products furnished by them, or (b) for the purpose of purchasing supplies and equipment for the use of members or other persons and turning over such supplies and equipment to them at actual cost, plus necessary expenses. Exemption shall not be denied any such association because it has capital stock, if the dividend rate on such stock is fixed at not to exceed the legal rate of interest in the state of incorporation or 8 per centum per annum, whichever is greater on the value of the consideration for which the stock was issued, and if substantially all such stock (other than nonvoting preferred stock, the owners of which are not entitled or permitted to participate, directly or indirectly, in the profits of the association, upon dissolution or otherwise, beyond the fixed dividends) is owned by producers who market their products or purchase their supplies and equipment through the association; nor shall exemption be denied any such association because there is accumulated and maintained by it a reserve required by state law or a reasonable reserve for any necessary purpose. Such an association may market the products of nonmembers in an amount the value of which does not exceed the value of the products marketed for members, and may purchase supplies and equipment for non-

members in an amount the value of which does not exceed the value of supplies and equipment purchased for members, provided the value of the purchases made for persons who are neither members nor producers does not exceed 15 per centum of the value of all its purchases.

This provision has several definite requirements. The association must be a cooperative type of organization which is provided for under the corporation laws of practically all states. The marketing (in ordinary accounting for other types of business organizations, the term purchases would be used) for nonmembers can not exceed 50% of total marketing volume. There is no allowance for marketing products of nonmember nonproducers. Purchasing (in other types of business an accountant would refer to this as sales) of supplies and equipment for nonmembers has the same 50% restriction, but allowance is made for a maximum of 15% of the volume of purchases for nonmember nonproducers. In many purchasing cooperatives nonmember, nonproducer transactions arise when local towns-people buy at the cooperative warehouse or store. A further restriction limits the payment of dividends on membership or common stock. A cooperative operates for its patrons and not for its stock owners and any savings are payable to its patrons and not to its stockholders with the exception of a nominal rate of return on stockholders' investments, which in most cooperatives is considered the equivalent of, and frequently called "interest."

It has been estimated that farmers had \$1,606,000,000¹ invested in their cooperatives. This investment has increased

ninety-four per cent on approximately \$780,000,000 since 1940. The Treasury Department² estimated that during the 1944-45 marketing season, there were 7,400 marketing associations and 2,750 purchasing associations. The volume of business of the purchasing cooperatives grew rapidly during the war period and the net worth of these associations probably increased as much as four times between 1940 and 1947.

The exemption from federal taxation is not automatic and it is not sufficient that the organization qualify as a matter of operation and organization. Form 1028, Exemption Affidavit, must be filed with the Treasury Department and a definite letter must be received from the Department before the exemption is effective. This form is an informational form and requires data as to the provisions of by-laws, charter, marketing agreements, etc. If the request is filed after the beginning of operations, a detailed balance sheet must be submitted as well as a "classified statement of the receipts and disbursements" during the current year. Unless the Commissioner has determined that an organization is exempt, it must prepare and file an income-tax return for each taxable year of its existence.

A large number of farmers' cooperatives are not tax exempt. Many associations may not be so organized as to meet the specific qualifications for exemption.³ In other cases the associations may prefer to have a nonexempt status if management and owners believe that it is more advantageous to be taxed than to meet the statutory conditions of exemption. It is possible for these associations to be organized and operated in such a way that there is little taxable income. Provided the by-laws or charter make mandatory the distribu-

tion of savings proportional to patronage and if the organization follows the statutory provisions and the rulings of the Commissioner, it has generally been able to exclude from gross income in computing taxable income the amount of savings actually refunded or set up to be refunded to patrons.

Either a cooperative is completely exempt from income taxes or it is nonexempt and must file annual income-tax returns. There is no partial exemption; that is, a cooperative could not have a portion of its operations taxable and a portion non-taxable.

A large purchasing organization, Cooperative G. L. F. Exchange, Inc., notified its members³ that the board of directors was requesting a membership vote on the surrender of the tax exemption.

It is becoming a very costly operation to maintain the names of over 200,000 people on our patronage refund lists who either are not farmers or not regular users. The record keeping involved is costly and burdensome. . . . To be able to discontinue the distribution of thousands of G. L. F. checks for a few cents each . . . a costly operation. The fact that the checks are for very small amounts doesn't change the necessity of distributing them when G. L. F. operates on a Federal income tax exemption basis.

The membership subsequently approved the recommendation and the association's annual report pointed out that another advantage of accepting a taxable status was that thereafter permanent reserves (after income tax) could be built up and increase the financial stability of the organization. The question of ownership of reserves will be discussed later.

The ordinary business probably keeps its books and records to conform to income-tax rules and regulations or, at least, makes entries on the books to facilitate the preparation of the income-tax return. The exempt farmers' cooperative does not file the

¹ *The Balance Sheet of Agriculture 1947*, United States Department of Agriculture, Washington, August, 1947.

² Hearings before the Committee on Ways and Means, House of Representatives, Eightieth Congress, November, 1947.

³ *G. L. F. Week*; Vol. 12, No. 14; October 13, 1947.

usual income-tax return, but must file a report with the Treasury Department. This report, Form 990, assumes that the records are maintained in accordance with the cooperative type of business. A better understanding of the accounting for cooperatives may be secured by a discussion of the peculiar features of the data necessary for Form 990.

This return requires a balance sheet of the organization at the beginning and end of the year. The balance sheet is of usual type and no difficulty should be involved in preparing it. There are two items on the balance sheet which merit some discussion. Detailed information is to be submitted regarding each type of "Surplus Reserves" which, on the balance sheet form, is shown above capital stock. Space is also provided for "Membership Certificates," in which should be included all existing forms of capital equities except capital reserves and capital stock. Any reserves which have been allocated to patrons in the form of certificates should be included under this caption. Many cooperatives do not issue certificates but allocate reserves by book entries or records.

The cooperative laws of the various states usually require that reserves be set up. In general these statutes provide a minimum requirement and make no specific provision as to the maximum. As quoted above, income-tax exemption is not denied if a reserve is accumulated as provided by state law or if the reserve is "reasonable." Mr. W. L. Bradley, an authority on cooperative accounting, has written

... neither the statute nor the regulations go on to define the status of the equities represented by such reserves—whether they represent property of the patron which should be construed as taxable income "constructively received" by him, or whether they are properly the property of the cooperative corporation which has been appropriated for the purpose of the reserve and is therefore exempted from tax. It is this degree of

omission from the statute and regulations which makes possible the abuse of the privilege of accumulating reserves.⁴

Decisions of the courts have indicated that the cooperative should be in position to determine each patron's portion of the reserves and the majority of cooperative leaders believe that these reserves are distinctly the property of the patrons, and hence that the cooperative, as a corporation, has no income of its own to be retained. Many cooperatives advise their patrons as to the amount of the reserves belonging to each patron. While this procedure is not universally followed, nevertheless, the obligation still remains for the accounting records of the cooperative to be so maintained that the determination of the individual ownership of the reserves is readily obtainable.

The "income statement" submitted on Form 990 is condensed below. Form 990 is the reporting form for all types of tax-exempt organizations and those portions of the form which are not applicable primarily to farmers' cooperatives are eliminated.

INCOME, DUES, CONTRIBUTIONS, ETC.

Item No.		
7.	Gross receipts from business activities (state nature)	_____
8.	Patronage dividends (or patronage refunds) received	_____
9.	Gain (or loss) from sale of assets excluding inventory items (From Schedule B)	_____
10.	Other Income (if more than 10% of item 11, attach itemized schedule)	_____
11.	Total of items 7 to 10	=====

DISPOSITION OF INCOME, DUES, CONTRIBUTIONS, ETC.

A.	Expenses attributable to income items 6 and 7:	
12.	Cost of goods sold (or, in the case of farmers' cooperatives, purchases for or advances to patrons)	_____
13.	Compensation of officers, directors, trustees, etc.	_____
14.	Wages, salaries, commissions	_____

⁴ "Taxation of Cooperatives," by W. L. Bradley, *Harvard Business Review*, Autumn, 1947.

(other than compensation of officers, directors, trustees, etc.)

15. Interest _____
16. Taxes (such as property, income, social security, unemployment taxes, etc.) _____
17. Rent _____
18. Depreciation _____
19. Miscellaneous expenses (state nature) _____
- D. Other dispositions:
 29. Dividends (other than patronage dividends) and other distribution to members, shareholders or depositors _____
 30. Cash patronage dividends (or patronage refunds) (for farmers' cooperatives only) _____
 31. Patronage dividends (or patronage refunds) in stock, notes, credits, or other evidence of equity or indebtedness (for farmers' cooperatives only) _____
 32. Additions (if any) to reserves (attach itemized schedule) _____
 33. Additions (if any) to surplus _____
 34. Total of items 12 to 33 _____

It should be noted, first, that the statement is intended to balance and all income, etc., must be accounted for and its disposition must be explained.

The gross receipts from business activities would include gross sales proceeds from farm products marketed for patrons. In the case of a purchasing cooperative, this figure would be the amount received from patrons for supplies, equipment, etc., purchased by them, This amount is frequently referred to as "sales" although in this connection the title is not technically correct.

In the informational portion of Form 990, data must be submitted showing the value of agricultural products marketed for members; (a) actually produced by those members and (b) purchased or otherwise acquired by members. There must also be submitted the value of supplies and equipment purchased for or sold to (a) members, (b) nonmembers who were producers, and (c) nonmembers who were not producers. Hence the accounting records must disclose this essential information for every transaction with a patron.

Marketing cooperatives fall into many

different categories. The simplest arrangement is the pooling by a few producers of their product for a particular shipment or sale. The expenses are allocated against the receipts and the net proceeds are then distributed to the producers. Certain types of cooperatives are able to pool their expenses periodically along with a pooling of sales proceeds. Under this situation an advance is usually made to the producer of some given percentage of the estimated selling price, and the additional amount payable to the producer is periodically distributed. For either of these methods the accounting system would have to provide facilities for the posting of these payments to the individual producer's records. If, at the end of the year, because of incorrect estimates of expenses, or because of other sources of income, there is a net savings, this amount is distributable ratably to the producers in accordance with the quantities or dollars shown on the producer's records. Some marketing cooperatives function as a selling agency and a fixed percentage commission is deducted from all proceeds. This method of operation still requires the keeping of volume records for each producer and any net savings (which would be the excess of the commissions charged over the operating expenses) is distributable to the producers. When the marketing cooperative processes the products of patrons, it is frequently the practice to purchase outright these products from members and other producers at prices which do not discriminate between members and nonmembers and which are intended to leave an adequate margin for processing and selling. Individual records of "purchases" from producers must show the volume of each producer. A comparable situation in any other type of business would be where management desires to know the volume of purchases from every supplier, which probably would be secured either from an independent record or from

subsidiary ledger sheets or cards for accounts payable. The cooperative must have additional information on those records relative to membership and non-membership, which is usually equivalent to stockholders and non-stockholders, as well as information as to the actual production of the product by the patrons. As previously stated, the provisions of the income-tax exemption do not provide for the marketing of any product for non-producers.

The internal-revenue code provides that a cooperative is exempt if it is organized and operates for the purpose of "... purchasing supplies and equipment for the use of members or other persons, and turning over such supplies and equipment to them at actual cost, plus necessary expenses." Since the usual purchasing cooperative handles many items and in many cases carries on manufacturing activities, it is impossible to determine currently, or in advance, cost plus necessary expenses. It is believed that the statute was never intended to apply to every single merchandise transaction, but that at least once a year these figures would be determined and any over-charge would be returned as a patronage dividend. Hence the purchasing cooperative will fix its price to patrons high enough to cover cost and a liberal allowance for expenses. It would be extremely difficult in a purchasing cooperative to assess patrons for a deficit should the price not be sufficiently high to cover these items. It is necessary for the cooperative to maintain a record of each patron's purchase from the cooperative in order to distribute later to the patrons excess margins retained. Every accountant can imagine the difficulty in keeping these detailed records. It is comparable to an ordinary department store securing the name of each customer, whether the sale is for cash or on credit, and then posting each sale to a customer's ledger sheet. Some purchasing

cooperatives follow this procedure; others file each "sale" ticket under a customer's name and then at the end of the fiscal year prepare a tabulation of all tickets. As pointed out in the quotation from G. L. F., the keeping of these records is a very difficult and costly accounting job. In addition to keeping the detailed record of transactions with each patron, it is also necessary in filing Form 990 to show the total volume of business with members, nonmembers, and nonmember non-producers. The exempt cooperative should check these figures periodically to make sure that non-member business does not exceed member business and that non-producer business does not exceed fifteen per cent of total volume.

The above discussion has dealt to some extent with cost of goods sold as well as with gross receipts although for the purchasing cooperative the cost of goods sold section of Form 990 would contain usual cost figures. For the marketing cooperative, the problem is more difficult. Separate accounts should be maintained and a separate figure shown on the statement for advances to patrons which should include only the original payment and not subsequent distributions which are of the nature of patronage dividends. Any other items of cost should be clearly presented by means of other accounts and captions. In the case of pooling operations by marketing cooperatives where payments are made to patrons from each sales pool the total distribution would be considered as advances.

The cooperative should maintain operating expenses classifications similar to those that a comparable commercial corporation would use. No particular problem would be involved in handling operating expenses.

It is extremely important that the accounting records show detailed data as to the distribution of net savings. Many state

statutes provide a specific method for this distribution. The by-laws and charter of the organization must include provision for the detailed distribution even though some general method of allocation may be provided by statute. These specific provisions of the by-laws are essential for tax exemption. The obligation to distribute net savings to patrons has been the deciding factor in determining tax exemption in many court decisions. If there is a legal contractual obligation for this distribution, then it is assumed that any net "income" is the property of the patron and not the property of the organization. Some state statutes require that distribution of net savings by the Board of Directors be made after closing the books for the fiscal period.

Usually the first allocation is for the normal dividend on stock which, as previously mentioned, cannot exceed the state legal rate or eight percent, whichever is higher. Some states provide that a portion of the net savings, usually between two per cent and five per cent can be set aside as an educational fund. This fund is frequently used for the purpose of holding various patrons' meetings, publication of information, and similar educational purposes. This reserve should not be higher than would normally be spent in the immediate future. It is not intended that the amount in this reserve should continue to accumulate indefinitely. From an accounting standpoint, expenditures of an educational nature during the subsequent fiscal period are properly chargeable against this reserve. It is presumed that expenditures in excess of the reserve will then be charged to current operations.

The remaining net savings are available for distribution to patrons and legally belong to such patrons. The method of distribution to patrons depends upon by-laws, custom, and financial condition of the particular cooperative. As discussed in a pre-

vious section of this paper, the cooperative can set up legal (as provided by state statutes) and reasonable reserves. Fundamentally it is assumed that tax-exempt farmers' cooperatives allocate such reserves to patrons. This involves an accounting record being maintained which shows the amount of each reserve belonging to each patron whether or not any written evidence is given to the patron. This record can be maintained by means of a list showing the total reserve figure appropriated at this time to each patron or by means of a card record for each patron on which can be recorded the amount due to each patron for all periods up to date. Any subsequent distribution of these reserves would be in accordance with the patrons' records.

Many old, established farmers' cooperatives distribute the remaining net savings (after dividends on stock and reserve allocations) as cash patronage dividends. Other cooperatives have followed the practice of issuing common stock as a patronage dividend, and some rotate this investment by calling in stock which is, say, 10 years old. Many farmers' cooperatives issue certificates of indebtedness or other forms of certificates for the net savings of the cooperative. These certificates may or may not be interest bearing and may or may not have a definite due date.

I have made a distinction between a retention of net savings with a book allocation to patrons, and allocation of net savings by means of some written evidence given to patrons. It is my opinion that different ledger accounts should be used for these different types of additions to reserve and a single account would not be sufficient.

If a purchasing cooperative, which has a very large number of patrons, follows the practice of issuing stock as patronage dividends, the individual subsidiary stock-ledger cards become very burdensome to

handle, especially if stock is issued in fractional shares.

In order to eliminate many small distributions of patronage dividends and to compensate the cooperative for the heavy cost of detailed record keeping, many associations make a fixed charge against each patron. This charge may be fifty cents or one dollar, or some similar amount per patron. If this procedure is followed, then an entry must be made on each patron's record showing the deduction for this charge from the amount due him. The expense of handling these records may be incurred in two fiscal periods, and the correct entry on the general books is difficult to determine. If it is assumed that all of the expense is incurred in the current year then no formal entry is necessary. The charge against each patron would result in a larger percentage distribution to all patrons. If it is assumed that a portion of the expense will be incurred in a subsequent fiscal period, which to me appears to be the more logical assumption, then an entry would have to be made debiting net savings available for distribution for the past year and crediting office or other expenses in the new fiscal period.

The detailed figures in regard to the allocation of net savings would be shown on Form 990 in the appropriate spaces. It has been generally understood that if the distribution as dividends on stock, cash patronage dividends, and patronage dividends by some form of equity or indebtedness is made before the date for filing Form 990, these items are considered as having been paid in preparing the form. A cooperative has four and one-half months after the end of the fiscal period before the report must be filed. If the distributions are not actually completed by that time, then on the form it is assumed that the amount is added to reserves.

There appears to be a need for a better

understanding of accounting terminology⁵ in connection with the records and financial statements of farmers' cooperatives. At present, there is a great deal of confusion in attempting to bring over the terms used for the financial statements for other types of business into the cooperative field. Cooperatives, to a large extent, have adopted the corporate form of legal organization but there is a distinct differentiation between the member-patron-owner relationship in the farmer cooperative organization and the stockholder-owner relationship in other types of corporations. Accountants have brought over into this non-profit cooperative field the usual terms used by profit corporations.

Mr. Kelsey B. Gardner, Principal Agricultural Economist of the Cooperative Research and Service Division of the Farm Credit Administration, stated at a recent meeting that:

A great deal of confusion still remains and this confusion may be attributed to at least three major difficulties:

1. Failure of many workers to understand fully and to work toward the obtaining of a widespread acceptance of the theory of cooperative organization, its principles and objectives. Involved in this problem are such factors as the recognition of a cooperative as an integration of farming activities either in the acquisition of supplies or in the marketing of farm products. A further basic concept is that the cooperative forms an agency relationship and that the monies handled by it for its member-patrons are not to be construed as income to the corporation but are as funds belonging to the patron.
2. The many diverse forms of cooperative corporations have contributed strongly to the development of this confusion.
3. Not the least of the disturbing elements contributing to the terminology confusion have been the efforts of some organizations

⁵ For an excellent discussion of accounting terminology for farmers' cooperatives, see W. L. Bradley, "Terminology and Financial Statements for Cooperatives," *Journal of Accountancy*, Vol. 79, No. 4, April, 1945.

to call themselves cooperatives, although operating as nonprofit organizations with respect to member business and as profit businesses in the handling of nonmember business. As a significant number of cooperative organizations operating under statutes which permit this composite operation are to be found in the United States, the problem of developing terminology which meets both the requirements of profit and nonprofit business within a single organization has complicated the situation substantially. Obviously in an organization of this type "savings" can only be properly applied to amounts which arise from that portion of the business with member-patrons when operated on a cooperative basis. The net result of this type of a business is to require some colorless descriptive term to meet the requirements brought about by combining nonprofit and profit operations within a single business.

It is still very common to have the patrons of a purchasing cooperative referred to as "customers," and operating transactions referred to as "sales and purchases." The terms "sales and purchases" have a finality which is not present in comparable cooperative transactions. The marketing cooperative does not have purchases as such but, as pointed out above, this transaction of the cooperative simply represents an advance to the producer. At some time in the future these advances may be supplemented by an additional payment. The term, advances to patrons, appears to be preferable for the "purchases" of the marketing cooperative, although this type of cooperative actually has sales.

Accountants have not developed a uniform term to apply to transactions for the purchasing cooperative. These transactions with patrons should not be referred to as sales. For want of a better term, some cooperative statements use the caption "sales to patrons," although a clearer title would probably be purchases by patrons or patrons purchases. Likewise, the caption, cost of sales, or cost of goods sold, is not applicable. If the first figure on the operating

statement is to be referred to as "patrons' purchases," then the cost section could properly be labeled "cost of patrons' purchases."

It does not appear to be correct to refer to a statement prepared for a farmers' cooperative as the "Statement of Profit and Loss." The cooperative, as such, is supposed to have no profit. Similarly, on the statement, therefore, the terms gross profit and net profit, would not be correct. Some cooperatives refer to this statement as a "Statement of Operations" and other organizations entitle it "Statement of Operations and Margins."

Since the cooperative type of organization in marketing patrons' products deducts from its receipts an estimated margin to cover its cost and expenses, and since the purchasing organization adds a corresponding margin to its cost before transferring the supplies to its patrons, the terms margin and handling charge are better terms than profit. In other words, such a statement of operations should use the captions "gross margin" or "gross handling charge" and "net margin" or "net handling charge" rather than gross profit and net profit. The final figure on the operating statement should not be net income as this figure is usually labeled on a profit and loss statement. This figure for a cooperative really represents an excess handling charge or handling margin taken and most cooperatives have adopted the term net savings to apply to this figure. Net savings, in my opinion, is more descriptive of a cooperative organization.

With the exception of the net-worth section, the balance sheet itself, as well as the various captions appearing thereon, should generally conform to the balance sheet of any other type of business. In the net-worth, section capital stock, whether preferred or common, or both, will correspond to the general practice of commercial enterprises. If a cooperative issues certi-

cates of equity as a patronage refund, the amount of the certificates should be shown as a separate heading in the net-worth section. Of course, if the cooperative has issued certificates of indebtedness with a definite due date, then this amount is not a net-worth figure but a liability. Appropriation of margins or reserves should be reflected as a part of net worth with clear titles. Several references have previously been made to reserves and the caption which is used for these reserves or appropriations should explain the purpose and

justification for the reserves.

The term, surplus, should not be used either on cooperative records or on cooperative balance sheets since this term implies an accumulation belonging to stockholders. Any accumulation of net worth by a cooperative does not belong to the stockholders of the cooperative but to the patrons of those periods when the accumulation took place. Hence, all cooperative balance sheets should refer to this amount as undistributed margin, undistributed savings, or retained proceeds.

PUBLIC ACCOUNTING DE LUXE

CLARK L. SIMPSON

THE QUESTION as to whether civil servants can do a professional accounting job is being answered affirmatively in the U.S. General Accounting Office. They definitely can. Civil Service does not deter the professional accountant from performance of an independent audit carried out in conformity with methods and standards followed in the profession. The accountant, new to the government, may bridle at some of the red tape surrounding the appointment of personnel, he may resent being given a CAF grade, he may be irked as he realizes he has become one of the many employees of the government; but these are superficial wounds, easily healed by keeping his eye on the objective. He is making a contribution to the field of accounting, he is gaining additional national recognition of the need of independent audits by all corporations, private or public; he is helping to bring accounting into its own as a distinguished profession; he can take pride in his work and in the result of it.

Corporation Audits Division of General Accounting Office was established in 1945 as a result of an Act of Congress providing for a commercial type audit of all government-owned or partially owned corporations. The Comptroller General, in organizing the division, called directly on the accounting profession for advice and consultation. Members of the American Institute of Accountants gave unstintingly of their time in answering this call. They recognized a unique opportunity to enhance the prestige of the accounting profession and to do a genuine service to their government. The accounting profession nominated many of the executives who initially took over as Director, Deputy Director, Assistant Directors, and top staff

men in the Division. A committee of the Institute was appointed to serve in an advisory capacity and materially assisted in early policy problems confronting this "governmental public accounting" firm.

Corporation Audits Division is organized and operates in much the same manner as a national firm of C.P.A.'s. The Assistant Directors play the role of partners. Managerial and operating responsibilities are assigned according to the general classifications of supervising accountants, senior accountants, and junior accountants. Assistant Directors are given charge of specific assignments and in each assignment all operating authority emanates from the Assistant Director in charge. He is fully responsible for all matters in connection with the audit. The delegation of authority and responsibility by the Assistant Director generally follows lines based upon staff rank.

Members of the staff are required to keep abreast of technical developments in the field of accounting, and advancements depend greatly upon continued improvement of technical ability and proper application of the employees' time. A library is available to staff members for study and research, in preparation for specific audit assignments or for general improvement. Staff members are encouraged to become members of the Institute, State C.P.A. Societies and other professional organizations in order that all benefits afforded by such associations may be utilized to the fullest extent.

Each member of the staff is instructed to inform the personnel director of the division of any potential employee, any accountant whom they feel would be a valuable addition to the staff. Many excellent men have been recruited in this way.

Juniors are obtained through much the same procedure as in public accounting. Representatives visit the universities, talk to their accounting classes, investigate the more outstanding students, and recruit the best applicants. At the present time most of the lower staff positions (CAF-5, 7, and 9) are filled by such graduates. Present plans provide for filling higher positions, wherever possible, by promotions from within, thus insuring proper advances of capable personnel.

One of the big advantages offered junior accountants in Corporation Audits Division is the C.P.A. coaching class conducted by staff supervisors and made available without charge. Staff personnel are not required to take this course but each member is strongly urged to prepare for and take state C.P.A. examinations. Efforts of the Directors and managerial board, Corporation Audits Division, have been directed toward gaining definite recognition by various state boards of the experience gained in the division as qualification for the CPA degree. A number of states have already recognized this experience, others indicating they will give it consideration in each individual application.

Various audit reports forwarded to the Congress have been publicized in the *Journal of Accountancy*. They have been similar in many respects to the reports of public accounting firms, even including an opinion on the fairness of the financial statements. Congress has been impressed with the work of this division. Judging from letters received in the division, industry and the general public have also been impressed with the performance to date. One Congressional committee after reading a report criticizing a serious corporate situation, publicly reported:

... accounting is one of the most important responsibilities of management A satisfactory audit of a corporation's affairs cannot be made

unless the corporation's accounting is adequate, accurate, and up to date. It is the duty of auditors only to review complete accounting data and no part of their duty to undertake accomplishment of the accounting functions or otherwise relieve management of its responsibility therefor. Adequacy of accounting implies the establishment of procedures that will assure timely, orderly, and accurate recording, in books of account, of all assets, liabilities, capital, income, and expense, not merely cash receipts and disbursements, and timely preparation of statements from the accounts that show how the corporations' capital is being employed and afford the directors and managers of the corporations, and the Congress, a clear basis for operating and policy decisions. The committee recognizes that accounting is not the sole objective of administration, but it believes that the Congress has a right to expect the accounting of the Government's corporations to be equal to, if not better than, the best found in private corporations.

Thus a single report focused the attention of Congress on the importance played by accounting in the life of a corporation, as well as the part played by the public accountant in pointing out the lack of proper and adequate accounting.

The accountant on the staff of Corporation Audits Division is performing his audit for the Congress and is in a position to be absolutely independent in the performance of such audit. He is in no manner responsible to the corporation under audit nor to the department of government in which the corporation may function.

His career is public accounting, his work ranges from the routine checking of the simple records of a small corporation to interpretation of the intricate affairs of a large enterprise. There are no limits to the problems presented to the staff members of Corporation Audits Division. The corporations under audit embrace activities involving manufacturing, merchandising, farming, banking, insurance, transportation, utilities, and municipal operations. Each engagement involves different facts and new problems presenting challenges which over the years have made the field

of public accounting so attractive.

Unlike many governmental assignments a position in this division is a strenuous but stimulating job. It is no berth for a lazy man but definitely offers a great deal to the ambitious, college-trained accountant who aims at a successful career in public accounting. The personnel manager doesn't whisper it very loudly, but, like

other positions in government, these jobs embrace the forty-hour week and twenty-six-days-a-year vacation. The division isn't trying to attract personnel by emphasizing these features but to the experienced practitioner, accustomed to hours during the busy season gauged only by the limit of one's endurance, they are not hard to take.

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THE INCREASING EMPHASIS ON ACCOUNTING AS A SOCIAL FORCE

PAUL GRADY

IN THE CHALLENGING "Study of History" by Mr. Arnold J. Toynbee the experiences of the human race are analyzed and interpreted in terms of the identifiable species of societies which may be called civilizations. The argument developed is quite convincing that this is the most intelligible unit of historical study as distinguished from the narrower nationalistic approach or the broader approach embracing all mankind. Mr. Toynbee has discovered twenty-one identifiable civilizations which have come into being in the past six or seven thousand years, of which only five remain in existence today. The existing civilizations may be briefly described as follows:

1. Western Christendom, embracing the areas identified with the Catholic and Protestant Churches, principally North and Western Europe, the British Isles, the Americas, Australia and South Africa
2. An Orthodox Christian Society in South-eastern Europe and Russia
3. An Islamic Society with its focus in the Arid Zone which stretches across North Africa and the Middle East from the Atlantic to the outer face of the Great Wall of China
4. A Hindu Society in the tropical subcontinent of India
5. A Far-Eastern Society in the subtropical and temperate regions between the Arid Zone of Asia and the Pacific

Both Western Christendom and the Orthodox Christian Society, which originated before 700 A.D., were found by Mr. Toynbee to have been affiliated with the Hellenic civilization which developed in the coasts and islands of the Aegean before 1100 B.C. and extended to approximately 400 A.D. The oldest identifiable civilization, of course, was the Egyptian which origi-

nated in the Nile River Valley before 4000 B.C. and became extinct in the Fifth Century of the Christian Era, thus existing three times as long as our Western Society has existed to the present date.

Against this extensive background of history it is of great interest to note the comparatively recent origins of two phenomena which we regard as outstanding characteristics of our Western Civilization. I refer to the establishment of responsible parliamentary government since the last quarter of the Seventeenth Century, less than three hundred years ago, and to the development of the industrial system of economy since the last quarter of the Eighteenth Century, less than two hundred years ago.

I am certain that accounting, even though elementary in method, served useful purposes in the governmental and economic undertakings through all the millenniums encompassed by the identifiable civilizations. However, an art or science cannot become a social force until the economic and governmental conditions permit an independent professional development which may then use its talents in making a contribution to the public welfare. These favorable conditions for the field of accounting did not arise until after the establishment of responsible representative government and an industrialized economy. Naturally, the conditions favoring independence did not arrive full bloom, and, since the industrial economy itself is less than two hundred years old, it is not surprising that "accounting as a social force" is a relatively new concept even among accountants. Our discussion of the increasing importance of accounting may

be limited for all practical purposes to the last hundred years and, as should be expected, the rate of development by which accounting becomes recognizable as a social force is greatly accelerated in the latter portion of the period.

It will be understood, I am sure, that a full coverage of the story of modern industrialism or of accounting, which necessarily travels a parallel orbit, would have to be presented on a world-wide basis. It is necessary to limit this treatise to a narrower scale and, therefore, I shall deal only with a part of the story relating to certain developments of the accounting profession in England, the country which originated the industrial revolution, and in some greater degree with developments in the United States of America, the country which has carried industrialization to its greatest effectiveness in production of goods and services.

GROWTH OF ACCOUNTING IN AN INDUSTRIAL ECONOMY

In the early period of industrialization business enterprises were modest in scope and were conducted by individual proprietors. The proprietors actively supervised and/or performed the functions relating to all phases of the business—production, sales, finance and accounting. The accounting problems relating to distinctions between capital and expense and income realization were simple ones and were resolved by the exercise of common sense and business judgment of the proprietor. Unfortunately, accounting came to be popularly associated with the scrivener's task of recording the transactions in books and records rather than with the exercise of judgment which determined how the items should be dealt with. It is obvious that the quality of judgment of the proprietor was on no different level for the accounting decisions than for the other

phases of the business, although admittedly different proprietors would be more proficient in one phase than another.

As industrialization progressed business enterprises attained much wider scope and transactions became more and more complex. Under these conditions the proprietors found it necessary to divide duties among personnel in accord with the logical phases of the activities and to base judgment to a greater and greater extent upon facts and interpretations furnished by the accounting process. A well-known contemporary writer has said that when business becomes too large for one man to see, accounting takes over. As in most generalities, these words might carry an erroneous connotation and, therefore, I hasten to add that accounting does not take over in the sense of running the business or even of creating an end within itself. It is, on the other hand, an indispensable service function directed toward a dependable records control over the assets and operations of an enterprise and supplying essential information required by officers and directors for purposes of management of the business, which includes the fulfillment of relationships and responsibilities to governmental bodies and other organizations having legitimate interests.

The expansion of business enterprises greatly increased the need for capital which was provided through formation of partnerships and the organization of limited liability associations or companies, as well as through short-and long-term borrowings. In this way investor and creditor groups were created which were not associated in the active management of the enterprises. Thus management became accountable for its stewardship in utilizing the capital placed in the enterprise. Furthermore, it soon became apparent that an independent examination of the financial position and results of operations by

persons skilled in accounting and auditing was a practical and essential step in establishing and maintaining confidence in the enterprise and in providing protection to the investing public. This was the basic cause of the development of the independent public accounting profession in countries having private enterprise economic systems and democratic governments.

In Great Britain the public accounting profession had progressed to the point in 1854 of organizing the first Institute of Accountants in Edinburgh. Similar organizations were formed shortly thereafter in England, and the present Institute of Chartered Accountants in England and Wales was incorporated by royal charter in 1880 as an amalgamation of two predecessor groups having approximately five hundred members. The public accounting profession has been fortunate in having as its leaders men of solid character and broad vision. These men through great devotion to their tasks have built the profession on strong foundations of integrity and competence, and by thorough training of an ever-increasing personnel have kept pace with the growing responsibilities imposed by a dynamic private enterprise economy and regulatory legislation enacted by democratic governments in promoting and protecting the public interest. In England some of the Acts were: Regulation of Railroads Act, 1879; District Auditors Act, 1879; Building Societies Act, 1896; Industrial and Provident Societies Act, 1893; Trustee Savings Act, 1893; and various Companies Acts beginning about 1845. All of these Acts contained provisions pertaining to appointment of auditors, and the Companies Act of 1900 required shareholders to elect auditors to report to them on their companies' accounts. The enactment of successive income-tax laws in England beginning in 1799 likewise brought an increase in scope of responsibility to the accounting field.¹

In the United States industrial development on a large scale came somewhat later than in England due to the conditions inherent in settling a new land and in changing from the status of colonies to an independent republic. A considerable part of the early industrial development was financed by British capital and it was quite natural that the practice of having independent auditors confirm the representations of management regarding their stewardship was adopted in America.

The story of the tremendous growth of industry in America, reflecting qualities of true genius in the organization of human abilities and energies to bring about a maximum use of scientific discoveries and mechanical inventions in the development of our natural resources, is so well known as to require no further comments. It will be sufficient to point out that the industrial development in America has resulted in the highest standard of life for a higher proportion of the population than has ever occurred in the history of the world's civilizations. It is my belief that this result could not have occurred except under a system of competitive enterprise based upon individual incentives, regulated to the extent necessary to protect the public interest by a responsible democratic government.

The economic development of America has presented broad opportunities for accounting to demonstrate its usefulness. As in Great Britain, successive tax laws beginning in 1913 and various regulatory acts, particularly the Securities Act of 1933 and the Securities Exchange Act of 1934, have had considerable effects. A complete presentation of the manner in which accounting has responded to these opportunities would require volumes. In this restricted treatment it will be neces-

¹ See article by Mary E. Murphy in *The Accountant* (August, 1947).

sary to mention only certain highspots of the growth of accounting organizations, and of the services performed. The American Institute of Accountants, through a predecessor organization, was formed in 1887 and the first law authorizing the issuance of Certified Public Accountant degrees was passed in 1896. The American Institute membership has grown to over eleven thousand during the sixty years of its existence and approximately twenty-five thousand persons hold qualifications as Certified Public Accountants.

From the beginning public accountants have stressed the need for placing the accounting function in industry on a higher plane. Managements have increasingly heeded this advice because it has been recognized that a high order of native ability, combined with technical accounting training and experience, are required qualifications for meeting the broad responsibilities of organizing sound systems of internal control in business, and of supplying the information required for intelligent management. It has also become fairly well established that the accounting results must not be dominated by the operating personnel. Accordingly, the controllership position has grown to a coordinate stature with other principal departments of business, and in some instances has been made responsible to the Board of Directors. The need for a national organization of controllers was met in 1932 by the organization of the Controllers Institute of America which has had a phenomenal growth in membership enrollment and in usefulness. The National Association of Cost Accountants had been organized previously in 1919, and embraces both public and corporate accountants who are particularly interested in cost accounting. Further specialization in the accounting field is evidenced by the organization of the Institute of Internal Auditors in 1941 and by the formation of the Tax Executives Insti-

tute in 1945. The combined membership of the foregoing organizations at the present time is in excess of twenty-five thousand.

The growth of organizations in public accounting and in corporate accounting has been dealt with at some length because it demonstrates that, from an obscure position at the beginning of the industrial revolution, accounting has progressed to a well-organized body of sufficient strength and independence to discharge fully its responsibilities. The fact that such responsibilities have been appropriately viewed from a broad angle is evidenced by the following quotation from the Committee on Accounting Procedure of the American Institute of Accountants:

The Committee regards corporation accounting as one phase of the working of the corporate organization of business, which in turn it views as the machinery created by the people in the belief that, broadly speaking, it will serve a useful social purpose. The test of the corporate system and of the special phase of it represented by corporate accounting ultimately lies in the results which are produced. These results must be judged from the standpoint of society as a whole—not from that of any group of interested parties.

Our historical survey will not permit any full development of the functions and usefulness of accounting. However, it is believed that the following brief summary will serve to demonstrate that accounting has fully earned any recognition which may have been accorded it, by arduous tasks faithfully performed in accordance with objective standards:

1. Maintenance of accounting control over assets, liabilities, revenues and expenses. This includes the broad problem of organizational plan and division of duties among personnel to guard against irregularities and falsification of accounts. It also embraces design and installation of accounting procedures and the provision of effective internal auditing.
2. Supplying information required by officers and directors for the operating and financial management of the business. Effective exec-

utive administration requires the establishment of planned yardsticks or standards and the measurement and reporting of performance as a basis for the prompt initiation of any required corrective administrative action. These purposes are accomplished by fixed or variable budgets and operating and financial reports, which are designed to meet all of management's requirements and may involve cost and profit determinations by territories, by plants, by departments, by products and units of products.

3. Accounting and reporting to investors and creditors on stewardship responsibilities, which includes interim and annual reports to stockholders, and interim and annual reports required to be filed with the Securities and Exchange Commission.
4. Supplying information required by management and by governmental bodies for rate-making and other regulatory purposes. This function, of course, has been for many years of primary importance to public utilities. With the extension of government regulation and influence over all business, particularly during the war, this function embraced such matters as costing of production under war contracts, renegotiation, price-fixing, and settlement of terminated contracts.
5. Supplying information required by management and by governmental bodies for all tax purposes, including property, excise, franchise and income taxes. Of these, income taxes have created the greatest demands upon accounting due to the extremely high personal and corporate tax rates in combination with the inexcusably complex determination of taxable income based upon pyramided revenue acts and related regulations and decisions.
6. Supplying the financial and accounting information required for obtaining new or additional capital. In case of public offerings, the registration requirements of the Securities and Exchange Commission under the Securities Act must be met.
7. Supplying information required by management, governmental bodies and labor organizations regarding costs, income or other economic facts or statistics. This is one of the newer fields for accounting service and will be dealt with in further detail at a later point.

The increasing importance of accounting

as a social force has been forcefully portrayed by the Hon. James J. Caffrey, Chairman of the Securities and Exchange Commission, as follows:²

Perhaps the most striking thing about your profession is the enormous change that has taken place in the position of the accountant. From the simple scrivener tabulating receipts and disbursements, with limited functions and limited responsibilities, he has become the processing plant through which the raw data of finance must pass before it can be compiled in the vast financial encyclopedia of our time. . . .

. . . To these difficulties have been added many others. Not only is the imagination staggered by the growing size and complexity of what the accountant must account for, but it is not always clear even for whom accountants account. The single enterprise is no longer the personal concern of one owner or a small group of owners. Its ownership is likely to be spread among vast numbers of security holders, aggregating into a welter of conflicting legal and economic interests in the single business unit. In any given situation the exercise of an accountant's judgment may vitally affect the ownership interests of one competing group of security holders as against another.

History seems to have an endless storehouse of burdens for the accountant. His presentation must also satisfy the regulatory agencies interested in the operations of the economic enterprises for which he accounts. One group in government is charged with protection of the revenue, another with the protection of security holders, another with the protection of rate-payers, another with the protection of employees, and so on. Each of these bodies may approach the balance sheet or the income statement with a different emphasis, and may read it for a different message. Nevertheless, the accountant is expected to produce one single adequate, truthful, and understandable statement.

History has thus thrust the accountant into a crucial role. Management, labor, conflicting groups of investors, potential investors, and governmental interests make vital decisions based on the story told by the accountant. Yet the accountant is no mere reporter who sits by the sidelines giving a play-by-play description of the business. Save in the simplest kinds of business he has been given a task which embraces inter-

² Address, "Plain Talk in Accounting," given at 1947 Annual Meeting of the American Institute of Accountants.

pretation as well as mere recording; judgment as well as mere tabulating; art as well as science.

What does this add up to? Perhaps the simplest way of putting it is to say that the accountant's position has become a position of power. In this regard history has an even hand; with power she doles out responsibility.

GROWTH IN ACCOUNTING AND BUSINESS EDUCATION

The development of formal education in accounting and business at the university level has largely taken place in the last fifty years. It is not at all surprising that the majority of classical educators should have resisted the granting of credits in accounting and other business subjects because they have shown the same resistance to practically all new professional fields. The organization of accounting courses was all the more difficult because there were no satisfactory text books and on the whole, teachers did not have adequate knowledge of accounting and practical accountants did not know how to teach.

The establishment of the first colleges of commerce which remained in existence was due to the generosity and public spirit of a few businessmen, such as Joseph Wharton and Amos Tuck, and the relatively rapid strides thereafter are a tribute to the broad vision and persistence of a few educational statesmen, one of the outstanding being Dr. Edmund J. James. Dr. James was one of the early professors at the Wharton School; subsequently he was a professor at Chicago University, and later he served a long and distinguished tenure of office as president of the University of Illinois. Throughout his career he was a staunch advocate of a higher level of accounting and business education. The Wharton School of Finance and Economy at the University of Pennsylvania was founded in 1881 and stood alone in the field until 1898. At the close of 1900 there were only seven such institutions in the country. It is of interest to note that one of

these, The School of Commerce, Accounts and Finance of New York University, was founded by the trustees principally as a result of efforts of the New York Society of Certified Public Accountants acting through its first president, Mr. Charles Waldo Haskins.³

From the one university level College of Commerce which existed in 1897, the passage of fifty years has witnessed the establishment of ninety-five additional institutions which are on the New York accredited list for training prerequisite to qualifying for the CPA examination. The annual enrollment in these Colleges of Commerce aggregates many thousand students of whom a sizable portion look forward to careers in public or corporate accounting. I know there are many other colleges and universities which include comprehensive courses in accounting and business subjects which may not meet the technical requirements of the Department of Education of the State of New York. The American Accounting Association, a national organization of university accounting instructors, was organized in 1916 and has approximately two-thousand five-hundred members.

In a comparable record of growth, accounting literature has developed from the limited and more or less elementary book-keeping texts to a well-organized body of knowledge offering a wide variety of volumes in theory or principles of accounting, cost accounting, accounting systems and procedures, auditing standards, auditing procedures, internal auditing, budgetary procedures, etc. In addition the profession can well be proud of its proven periodicals, such as the *Journal of Accountancy*, *The Accounting Review*, the *N.A.C.A. Bulletins* and *The Controller*. By way of indicating a quantitative measure of current account-

³ "Early University Education in Accountancy," by Jeremiah Lockwood, *THE ACCOUNTING REVIEW*, June, 1938.

ing literature, the library of the American Institute of Accountants consists of approximately twenty thousand books and pamphlets.

CHALLENGES TO ACCOUNTING TO EXPAND ITS USEFULNESS IN SOCIETY

It is not possible to review the progress and accomplishments in corporate and public accounting and in the closely related educational field without a great deal of justifiable pride. Pride in our profession, if directed into proper channels, must cause us to recognize that the illustrious accomplishments of our predecessors place upon us the full responsibility for meeting the challenges to accounting to expand its usefulness to society in our own generation. The opportunities are great, because no period of history has presented such numerous and complex problems which need independent and objective solutions based upon a careful determination of facts and in the light of the public welfare.

Faithful service to society, of course, embraces the continuous improvements of the various purposes and functions of accounting as previously outlined. I believe that there is little risk that the profession will fail to measure up to high levels of performance of all traditional responsibilities in serving as an intelligence department in an industrial economy. The real risk is whether new challenges will be recognized and successfully met in a timely and adequate manner. Recognition of the challenges to accounting must be based upon an analysis of the major challenges to our country, and on a broader scale to our civilization, to ascertain wherein accounting can make constructive contributions.

Much has been said and written about current moral, political, and economic issues, which are naturally greatly complicated as a result of the destruction, confusion and stresses and strains engendered

by two world wars. It seems to me that the truly major challenges are as follows:

1. Can the people of the world be brought to a recognition of the necessity for, and an active acceptance of, a regeneration of religion? It does not require much imagination to realize how different our world could be if individual, group, national, and international affairs were conducted on the basis of the inspired code of ethics of Christianity.
2. Can the provincialism and prejudices of extreme nationalistic sovereignty be overcome by voluntary means in order to create a world government of sufficient power to prevent war, to abolish mental and physical slavery, and to eliminate artificial barriers to economic welfare? Scientific developments have made close neighbors of all peoples, and effective world government, if it cannot be born of peaceful cooperation, will probably have to be fashioned in the painful forge of military conflict.
3. Can responsible democratic government be organized on a level of efficiency that will reduce the cost of government to a reasonable and bearable overhead charge on our economy?
4. Can the leaders of industrial managements and the leaders of labor be made to see the great mutuality of their interests and the extreme need for cooperation in the preservation of private enterprise and in the strengthening of an incentive system of production?

If the third and fourth challenges were successfully met in our own country, its position of leadership would be enhanced to the point where the peoples of other nations would insist on following its political and economic example. The strength and encouragement thus generated might well bridge any remaining difficulties in the accomplishment of world government and religion. In the light of these interesting possibilities, let us explore briefly some of the things that accounting might do to assist in bringing about greater efficiency in government and in promoting a better understanding between labor and management.

A recent newspaper release indicates

that tax collections of local, state, and federal governments for the last fiscal year amounted to more than fifty-six billion dollars. While this aggregate may not be comprehensible to the human mind, its significance is quite apparent when we realize that it represents approximately \$1,000 per annum for each employed person in the United States. This is a greater burden than can be borne without destroying our way of life. A sizable part of this burden is attributable to the pyramiding of a vast bureaucracy which does not earn its keep. It is difficult to ferret out because, with possible minor exceptions, accounting has not been used in government as a tool for efficient management. Accounting can and should perform all of the valuable functions for government that it now performs for business in establishing standards and in measuring administrative performance. The accomplishment of these purposes would require that the accounting function be placed on a proper organizational level, and that it be administered by competent accounting personnel. Some of the organizational steps which might well be undertaken in the federal government are as follows:

1. Create a position of Controller General, or other appropriate title, as the chief accounting officer in the Executive Department. This position should have Cabinet rank and should be responsible for the establishment of proper accounting systems and reports, and for supervision of the accounting and budgetary activities in all departments.
2. Departmental controllers' offices should be established in each department of the government. The departmental controllers should be responsible to the Controller General for compliance with all required accounting and budgetary policies, but should also be responsible to the respective secretaries for the supplying of all information needed for the administration of the particular departments.
3. The Treasury Department should relinquish its accounting activities for other departments. The Treasury Department

would conform to the general pattern of having a departmental controller to look after the accounting and budgetary problems relating only to Treasury operations.

4. The present General Accounting Office should be reconstituted as the Auditing Office of the Government. It should remain independent of the Executive Departments, should make its examinations on a test basis in the light of existing systems of internal control, and should give particular attention to the efficiency of departmental operations in its reports to Congress. If properly staffed, this office could render invaluable service to the appropriation committees of Congress in consideration of departmental budgets.

While the foregoing is only a thumbnail sketch it will serve to indicate some of many ways in which accounting can serve as a useful instrument in helping and enlightened management obtain more efficient and therefore, more economical government. It is the responsibility of accountants to develop fully this theme, and to convince the governmental authorities of its soundness. Our campaign should be directed to high-level executive officers, to the leaders of Congress, and to the Commission headed by Ex-President Hoover which, pursuant to a Congressional Act, is undertaking a comprehensive survey of the Executive Departments of the Government.

During the past year or two there has been a growing realization that facts and an objective viewpoint could serve useful purposes in negotiations between management and labor, and several excellent articles have pointed out the ways in which the accounting profession can help smooth the road to industrial peace. I refer particularly to three articles in the July *Journal of Accountancy*,⁴ and to an address de-

⁴ *Is There a Field for Accountants in the Future of Labor Negotiations?* by Fred E. King, Executive Vice-President, Munsingwear, Inc.; *Stewardship: Social Contributions of the Accountant to Labor-Management Relations*, by M. H. Hedges, Director of Research, International Brotherhood of Electrical Workers, American

livered by Mr. Donald Richberg at the recent annual meeting of the American Institute of Accountants. No purpose would be served by duplicating the substance of these articles. Therefore, I shall assume that you have studied or will study them, and shall pass on to the development of a few points on a closely related problem.

Much has already been said, and it does not require clairvoyant powers to predict that much more will be said in 1948, about who is to blame for inflation. When we review the splendid control performance of our neighbor to the north, both during and since the war, it is indeed difficult not to indulge in recriminations. However, our efforts may be directed to more constructive channels by a consideration of ways and means of arresting the malady of shrinkage which has attacked our dollar.

Economic statistics indicate that the purchasing power of the dollar is now about one-half of its prewar value. They further show that gross payments to labor have increased more than enough to offset this decrease. However, a considerable portion, if not all, of this apparent improvement in the position of labor has been offset by the tolls of the tax collector. It should therefore be clear that even labor cannot improve its economic welfare by entering a race in the squirrel cage of inflation. If labor is no better off, think of the dire condition of people who have fulfilled their social contract and who are now dependent on fixed retirement or investment income. The monetary income of this group has been substantially reduced by the decrease in interest rates forced by governmental fiscal policies, and the remainder has then suffered a further 50 per cent reduction in terms of prewar pur-

chasing ability. Surely we have not become so callous as to allow this to happen without trying to find a remedy. Increased production at lower costs is the solution to the problem; and it is the only way labor can raise its own standard of living.

I believe that labor can earn much higher real wages than the present level through the adoption of general incentive plans of production implemented by effective cooperation between labor and management. With this objective in mind, it is suggested that the leaders of labor and industry should reach agreement between themselves—without government help or interference—somewhat along the following lines:

1. Wages should be fixed at present rates for a period of four or five years.
2. There should be no strikes or lockouts during that period; all disputes should be settled by arbitration.
3. In lieu of wage increases employees should receive, quarterly or annually, production dividends representing one-half of the reduction in the current wage component of the cost of products as compared with a similar volume priced at the wage cost per unit of production in the year (or other agreed period) prior to the date of agreement.
4. Selling prices to customers in the succeeding period should be reduced by amounts at least equal to the wage production dividends.
5. Employees should agree to use their best efforts to promote full cooperation in the program of increasing efficiency in production methods. Suggestions for improvements should be rewarded, and loafers should be reported to management and union officers.

No single pattern, of course, would fit all companies and all industries. But, if the principle of reducing costs and increasing production with the sharing of the benefits between labor and customers could be generally agreed upon, we would remove most of the conflict from labor-management relations and would reverse the in-

flationary spiral and the attendant dangers to our economy. Employees would benefit by the production dividends and by lower prices of the goods they buy; customers would benefit by lower prices; and investors would benefit from increased volume of production together with ultimately lowered costs of materials purchased. The accounting profession could readily ascertain the facts and report them objectively and independently in order that there might be a clear understanding of the results obtained under the incentive production plans, both in the aggregate and as to individual employees.

Inflation has brought another important problem to the accountant's doorstep by producing a wide disparity between the monetary income reported by traditional accounting methods, and real income as measured by an increment in economic wealth. The disparity arises primarily from stating plant exhaustion pro-

visions in terms of original cost, and from the effect of first-in, first-out inventory methods. The importance of corporate income in our economy is so great that steps must be taken either to bring accounting income into closer agreement with economic income, or to show the latter result in supplementary statements in all published reports. Otherwise appropriate information will not be available to serve in the formulation of many far-reaching governmental and economic policies.

It is hoped that the foregoing will illustrate at least a few ways in which accounting may be of broader usefulness in helping society to cope with current problems. Destiny has fashioned stupendous issues to test the courage and vision of our generation. If we produce the leadership to meet the challenges, we can look forward to the hopeful potentialities of lifting civilization to the dawn of a new millennium morally, politically and economically.

THE USE OF VISUAL AIDS IN THE TEACHING OF ACCOUNTING

DAVID W. THOMPSON

THE TEACHING OF accounting represents one of the most formidable challenges to the adapting of visual aids to teaching situations. This is true because of the very nature of accounting. Accounting requires some abstract thinking, especially in advanced courses. Abstractions are very difficult to visualize. Accounting requires the study of detailed forms and statements, and, until recently, projection devices have not been of adequate power to project these necessary details.

This explains in part the slight use of visual aids in accounting instruction. Another explanation is that accounting instructors are not aware of the possibilities of visual aids and are not trained in their use.

However, since tests show that an individual learns primarily through his sense of sight, it seems that efforts should be made to use visual aids in teaching accounting in spite of the difficulties encountered.

In considering the use of visual aids in the teaching of accounting, four questions present themselves:

1. What visual aids are adaptable to accounting instruction?
2. Why use visual aids in teaching accounting?
3. What problems are involved in the acquisition of visual aids?
4. What problems are involved in their use?

In answer to question 1, visual aids that are adaptable to accounting instruction are:

1. The blackboard
2. Motion pictures

3. Lantern slides
4. Film strips
5. Charts
6. Plant visits

For question 2, concerning reasons for using visual aids, the following apply:

1. The student learns more thoroughly. Enthusiasts frequently exaggerate the over-all value of visual aids. Conservatively, however, experiments show that students obtain 35 per cent more factual information when visual aids are properly used.

2. The student remembers longer. Tests show that facts learned are retained 35 per cent to 55 per cent longer.

3. The interest and attentiveness of the student are increased.

4. Classroom time is saved through virtual elimination of blackboard writing, passing out mimeographed data, etc.

5. Variety of material presentation is made possible. Pictures, charts, forms, etc. may all be used.

Let us further consider the problems of acquiring and using each type of visual aid.

1. The Blackboard

The blackboard is the first aid mentioned and is included merely to show that all instructors use some type of visual presentation. The question is whether the instructor is using the proper aid in the proper way at the proper time. The advantages of the blackboard are obvious, but all of us will recall its shortcomings from our own classroom experience as students.

Blackboard writing is time-consuming and contributes to restiveness in the class when the instructor's back is turned. The

final results may or may not be legible, depending upon the teacher's skill and patience. There is no variety in method of presenting material.

To get the most from the use of the blackboard, the following rules are suggested:

1. Take pains to write, print, or draw legibly.
2. Use letters or figures large enough to be seen by all members of the class.
3. Arrange the lighting in such a way that all members of the class can see the board without undue strain.
4. Talk to the students and not to the blackboard.
5. Use a pointer while explaining material on the blackboard.
6. Draw or write quickly so that the interest of the students will not lag.

7. Erase material which is irrelevant or no longer pertinent, but do not erase material too rapidly for students to copy the information you want them to have.

If one finds, in using the blackboard, that it is difficult to adhere to the above rules, he should seek some other visual aid to do the job. The blackboard will be of very limited value to the student if the above rules are not followed.

2. Motion Pictures

Motion pictures for educational use are usually 16 mm. in width. In contrast, films for entertainment purposes are 35 mm. in size and call for theatrical production equipment.

Motion pictures possess distinct advantages:

1. Illusion of reality. The ideal method of learning is to visit the setting and see the item first hand. If this is impossible, the motion picture approaches this ideal and provides the experience vicariously.

2. The motion film is especially valuable to scientific workers in enabling them to

analyze motion and movements for detailed study.

3. By means of the motion picture and animated diagrams one can visualize the invisible. Industry is making increased use of animated drawings for this purpose, to show exhaustion of assets through depletion, etc.

4. The film shows continuity of movement better than any other visual means.

5. The motion film is advantageous in giving a vivid summary or general background survey of a topic.

6. Students remember motion picture material for a longer period of time than they remember any other material.

But against these advantages motion pictures have very definite limitations:

1. The major disadvantage of using motion pictures is the cost. To be valuable a motion picture must be correlated directly with the subject being presented. Films available on a rental or free basis very seldom have any adaptability to accounting course work and are of very little value. A ten-minute sound film commercially made to fit exact course needs would cost from \$12,000 to \$15,000. A large midwest manufacturer recently had a thirty-minute training film made at a cost of \$38,000. The same firm had made for them a film of still-posed pictures at a cost of \$10,000. A three-minute animated film designed to explain a company's balance sheet to its employees cost \$2,000.

To attempt to make motion films yourself is ill-advised unless you are experienced. The successful production of training films requires a combination of abilities including, in addition to a command of motion picture techniques, detailed familiarity with the subject matter covered and film instructional methods. The cost, in addition to personal services, even then would be in the neighborhood of \$1,000 per four hundred feet of film.

This cost rules out motion pictures for

almost all accounting educational uses.

2. The motion picture, with its rapid-fire method of projection, must be shown two or three times if any real study or analysis of the content is to be made.

3. A third disadvantage of the film is the mental hangover from entertainment pictures. The Hollywood pictures have created a "passive" audience habit. People observe, are entertained, but do nothing about it. If motion pictures are to be used effectively for educational purposes, a participating audience reaction must be achieved. Old habits are hard to break.

4. Motion film requires specialized equipment and operation.

Projectors are not expensive. Bell and Howell, Ampro, and Victor each sell a good projector for approximately four hundred dollars.

3. *Lantern Slides*

Projected still pictures are more useful than the motion picture in many formal teaching situations. There are several methods of still-picture projection, each of which has certain advantages and limitations. The most widely used still-picture projectors are:

1. The lantern slide
2. The film strip
3. The opaque projector

The standard lantern slide projector is probably the oldest type. The material to be projected is reproduced on a glass slide $3\frac{1}{4} \times 4$ inches. A newer lantern slide is the so-called 2×2 -inch slide which differs from the older standard type only in size. This more recent development extends the use of slides into many teaching situations where extreme portability of equipment and low cost are important.

A lantern slide is composed usually of four parts:

1. The glass on which the picture has been printed
2. A mat or mask, to keep the size of

the picture within the gate of the projector

3. A cover glass

4. Binding tape

Many 2×2 -inch slides are merely a film mounted on cardboard.

Slides also may be made by typing through carbon or cellophane; by drawing with crayon or india ink on etched glass; or by contact printing from photographic negatives. They can be made in 2×2 -inch size from 35 mm. Kodachrome—either color or black and white.

The lantern slide has special advantages:

1. The greatest advantage the slide has over the other projected visual aids is that the slide offers the maximum in brilliance. This enables one to use the slide in a room that is not darkened—in a room light enough for students to take notes and to read.

2. Slides are flexible—no continuity of lecture is fixed. A slide can be shown singly or in a sequence. The slide can be made quickly to meet the changing needs of a curriculum.

3. By projecting a slide on the blackboard, all sorts of markings can be made on the board and erased without affecting the picture.

4. Color slides can be made inexpensively. Two by two-inch Kodachrome slides can be had for 35 cents each. The standard size in color is slightly more costly.

The major problem in using slides is again a matter of cost and production. If one has a knack for photographic and art work, he can make slides at the prices just mentioned. The task, however, will consume many hours of outside work.

First, the lesson to be presented must be surveyed and broken down into thought units. Then copy for each of these units must be prepared. This involves getting the copy into the correct proportion for placement on the slide and in a suitable condition for photographing. The photo-

graphing and manufacture of the slide follow. Obviously this is a lengthy job and one that requires the services of a person trained in visual presentation methods.

Many universities have visual-aids divisions. As an example, at Indiana our visual-aids division will make slides for us from copy which we prepare at a cost of from 75 cents to 25 cents each, depending upon the number of slides ordered at one time. If the visual-aids division prepares the copy, the charge is \$2 per hour and the average time involved is two hours per slide. If commercial firms prepare the slides, the cost will be greater.

Projectors are relatively inexpensive. Bell and Howell have a 1,000-watt projector for 2×2-inch slides for sale at \$285. Both Bell and Howell and Eastman have on the market a 1,000-watt projector for 2×2-inch slides selling between \$250 and \$300. This amount of illumination is necessary to make the projected image readable without darkening the room.

Projectors for standard-size slides are available at similar prices.

4. The Filmstrip

Another type of projected still picture is the filmstrip. The filmstrip has been in use for over twenty years. It differs from lantern slides in that the pictures are printed in series on 35 mm. film.

The filmstrip is often referred to as slide-film, film-slide, film rolls, and by a producer's trade name of "Picturol."

There are two common sizes of the filmstrip: single frame and double frame. The single frame, which is in more common use, has a picture $\frac{3}{4} \times 1$ inch in size. The double frame slide is about $1\frac{1}{2} \times 1$ inch in size but is printed on the same film, 35 mm. In the case of the single frame slide, the width of the picture is across the film; in the double frame slide, the width of the picture runs with the film.

The outstanding advantages of using the

35 mm. filmstrip are:

1. A roll of filmstrip weighs about one ounce and can be kept in a very small container.

2. The projection equipment for filmstrips is both portable and relatively inexpensive, the cost ranging from \$12 to \$60.

The main disadvantage of the filmstrip is the limitation of projection. It is difficult to obtain sufficient brilliance. This means that the room must be darkened more than is necessary with a lantern slide and that details of the projected image are not as clear and distinct. For example, one cannot show a balance sheet or income statement on one picture. Very little printing can usually be read on either the single or double frame 35 mm. picture. If undue tiring of the students' eyes is to be avoided, the weight of the explanation will be on the shoulders of the instructor.

Another limitation is that the filmstrips are in a fixed sequence and the instructor cannot regroup, omit a picture, or change the order of pictures.

The problem of production and cost is more acute with the filmstrip than with the slide.

5. The Opaque Projector

A third means of projecting still pictures is the opaque projector. The opaque projector is an instrument which projects on a screen by reflection any pictures, diagrams, or other flat surfaces which can be placed in the aperture of the instrument, which usually is six inches square.

Its greatest advantage is that it will project almost anything onto the screen—charts, photographs, diagrams, pages of books, etc.—without the necessity of making slides or film. This, of course, leads to extreme economy.

The disadvantages of the opaque projector are that the picture is reproduced by reflection rather than projection. Much of the light is lost. Accordingly, a thoroughly

darkened room is required. And, of course, detail and clearness are sacrificed. The projection machine is much heavier and more cumbersome than either the lantern slide or filmstrip projector. Opaque projectors have been of little value in accounting instruction.

6. *Graphic Material*

When visual aids are mentioned one usually thinks of projected pictures—motion or still. But some of the most useful tools for teaching are not projected. By eliminating projection the problems of a dark room and brilliance of image are eliminated.

The most useful forms of nonprojected visual aids are graphs, charts, diagrams, and pictures.

Charts and diagrams are of many kinds such as organization charts, flow charts, diagrams of physical plant layout, etc. Many devices for displaying them are used, depending upon the ingenuity of the instructor.

In using the charts, precautions should be taken to insure:

1. That every student can easily observe.
2. That captions, text, and major points are large enough to be read by all.
3. That all symbols and graphic devices are explained.
4. That only one aid is shown at a time. Cover up all others.
5. That special care is taken to supply the idea of motion, size, depth, etc.

Limitations to the use of graphics are that they are costly to make and are difficult to mount, handle, and store. They become obsolete rapidly and they are easily torn and damaged.

The Army, in its Finance Training Center at Fort Benjamin Harrison, employed a method of using simultaneously small and large charts that is unique and effective. By means of the silk-screen proc-

ess of duplicating, replicas of their forms and reports were made. These replicas were large (3 feet \times 6 feet) and could be seen easily by a very large group. They could be made in any number and their unit cost was low (about 10 cents each, excluding labor). The instructor furnished each student with a mimeographed copy of the form and illustrated its use on the large chart. As the cost was negligible, new charts were made available for each class. Each student filled in the small form as the instructor worked on the larger one. The mimeographed forms, completed, were kept by the student for reference.

7. *Plant Visits*

One last visual aid, that often is not considered as such, is the actual visitation of the problem under study. Both visits to the scene of the work and visits by practitioners to the classroom are easily organized. It has been my experience that business executives are more ready to perform this function than the average educator is to utilize his services.

As can be seen there is a great deal of overlapping in the use of the various visual aids. And, obviously, not all visual devices can be adapted to all situations. The problem is to use each type where it will do the best job—in stressing difficult points, in supplying background information, or in previewing or reviewing a course.

Certain general principles underlie the successful use of any visual aid:

1. Intelligent and cooperative faculty support must be developed. If the faculty is not willing to exert some effort—and using aids requires more work by the faculty—the aids will be useless.
2. Use the right aid, at the right place, at the right time.
3. The inherent nature of visual aids—their concreteness—is such that the aid should be excellent in quality and accurate in detail.

4. Take steps to eliminate all technical problems. Make certain that needed equipment is on hand and in proper condition. Have the right size of room. Have a perfect presentation.

5. Prepare the class. Explain the purpose of the aid, suggest questions that should be answered and problems that should be solved, and show the practical application of the information to be gained.

6. Present the aid. It is not sufficient to display an aid. The instructor must teach it and this requires additional preparation on the part of the instructor.

7. Follow up the use of the aid:

A. Discuss parts of the aid that were not clear.

B. Summarize the information gained.

C. Discuss the questions that were

mentioned in the preparation.

D. Reshow the aid, if necessary.

E. If desirable, give a short quiz.

Emphasis should be placed on certain things that visual aids will not accomplish:

1. Visual aids are only an aid or supplement to the instructor. They cannot replace a text or instructor or outside study on the part of the student.

2. The use of visual aids will not lessen the work of the instructor. The instructor will work more, but he will work more effectively. The instructor will be forced to organize his course better, to prepare for his individual classes more exactly, and to arrange for the use of the aid.

3. Visual aids will not enable the instructor to cover more ground. If properly used they will result in more thorough coverage of the material presented.



USE OF SLIDES IN ACCOUNTING INSTRUCTION

W. J. FLEIG

PROFESSOR THOMPSON has informed you of the various types of visual aids suitable for use in accounting instruction. I would like to describe for you the experiences of the Accounting Department at The Ohio State University with slides.

During 1937, the Department purchased a 3×4 slide projector. Most of the slides consisted of solutions to problems and were used in classes which could be scheduled to meet in the room equipped for projection. Because of physical handicaps—lack of portability of the machine, room assignments, difficulty in obtaining photographic service, and the war—the utilization of slides gradually decreased until it ceased altogether. However, our interest in this type of visual instruction continued, and was translated into action last winter when we found it necessary to have two large sections of the second course in elementary accounting. These classes were met in an auditorium which lacked the usual facilities for the presentation of illustrative material. It was decided to present such material by projection (of slides) provided we could obtain equipment which would meet our immediate requirements and also be suitable for use in other classes.

In brief, these requirements were: First, a large image,—one large enough to contain considerable material which would be clearly visible to all students. Second, a machine which would project a readable image with sufficient light in the room so that students could see their papers and take notes. Third, we wanted a portable machine.

We selected a 2×2 slide projector with a 1000-watt lamp. This machine has

projected images as large as 16 feet square on a white wall, with sufficient illumination in the classroom for the students to read and write comfortably.

During the past nine months we have used slides extensively in certain elementary, intermediate and advanced accounting classes. These classes have varied in size from 20 to 325 students. Some types of material which we have presented on slides include:

1. Problem solutions.
2. Charts and diagrams of procedures, processes, etc.
3. Forms and records.
4. Computations.
5. Development of illustrative cases.
6. Outlines of subject matter.

At this time I am going to describe a few slides representative of those which we have used in our accounting classes. I will try to give you some idea of what we attempted to accomplish with each slide.

The first series of slides is used in the introduction of the accounting for a manufacturing enterprise.

Slide #1. This is a picture of a factory. The picture serves to make the explanation of manufacturing operations more concrete. The buildings are separated to facilitate the presentation of the relationship of the manufacturing accounts to the manufacturing operations.

There are three buildings: material warehouse, manufacturing plant and finished goods warehouse. The flow of materials from the railway car, to the material warehouse, to the plant, to the finished goods warehouse, to the delivery truck, is illustrated.

Slide #2. This slide shows the same picture with the manufacturing inventory accounts and the cost of goods sold account placed directly below the buildings and the truck.

Slide #3. This slide shows the recording of the purchase of raw material. The line relates the re-

ceipt of the material into material storage with the debit to the material account.

Slide #4. This slide shows material being placed in process.

Slide #5. This slide shows the application of labor to material.

Slide #6. This slide shows some of the indirect costs of manufacturing operations.

Slide #7. Here the manufactured product is transferred from the factory to the finished goods storage.

Slide #8. A sale has been made and the goods shipped to the buyer.

Slide #9. This is the last slide in this series and shows the complete illustration without lines connecting the pictures with the accounts.

The next series of slides shows the development of the work sheet for a manufacturing enterprise.

Slide #1. The trial balance with the work sheet headings. The information for adjustment is presented at the bottom of the slide.

Slide #2. The adjustment for the new inventory of raw material.

Slide #3. The beginning inventory carried over as a debit to the manufacturing column.

Slide #4. The debit adjustment carried over as a debit to the balance sheet column.

Slide #5. The credit adjustment carried over as a credit to the manufacturing column.

Slide #6. The complete illustration of the raw material inventory adjustment.

Slide #7. This is the complete illustration of the work sheet. It shows, in addition to the inventory adjustment, the adjustments for accrued wages and factory supplies and the proration of an expense to functions.

We have used slides extensively to present the solutions to problems. One or more slides may be required to present the entire solution. Here are a few examples:

Slide #1. Current assets section of balance sheet, copied from mimeographed material.

Slide #2. Portion of Statement of Profit and Loss copied from printed material. The image is presented vertically on this slide. Projectors will show slides either way but most screens are designed for horizontal presentation.

Slide #3. A portion of a balance sheet copied from typewritten copy.

Slide #4. Two men taking an inventory of radios, copied from an ink line drawing used in connection with a problem for beginning students.

We have found slides to have the following advantages over the blackboard in the presentation of illustrative materials in the classroom:

1. Time is saved in placing the material before the students. Many types of illustrations using only a few minutes with slides would require the entire period for blackboard presentation.
2. Pictures, which may be presented on slides, cannot be placed on a blackboard.
3. The material to be presented must be developed and worked out in advance. While this is possible with blackboards, in many instances it may not be done.
4. A better presentation of form and content. Blackboards have space limitations and illegible handwriting is an additional handicap for some of us.
5. Slides can be used as many times as are needed. (We use them during office conferences as well as in the classroom.)
6. Uniform instruction for multiple sections is facilitated.

The preparation of slides is not difficult. Commercial service is available for the photographic work required. Our photography department will make slides for us at a cost of \$.50 to \$1.00 per slide.

The copy should be prepared with care and designed to make the most effective use of the space available. This space is determined primarily by the relationship of the height of the illustration to the width. For 2×2 slides, this relationship is approximately 2:3, either vertically or horizontally. A high degree of contrast is important, the ideal copy consisting of black on white. The black should be very black. An ordinary typewriter with an ink ribbon will produce acceptable copy but the typing must be of even density. The illustrative work sheet shown earlier was prepared on an electric typewriter with a carbon ribbon. This machine, a proportional spacing type, produces superior copy for this purpose. A clear, dense mimeographed copy will photograph very well. A heavy black ink will photograph well. The copy for the factory illustration was

prepared with india ink.

It is not necessary to prepare separate copy for each slide in a step-by-step series. All of the slides in the worksheet series were prepared from a single copy of the complete illustration. This was accomplished by blocking out portions of the copy with white paper. The black lines were pieces of black thread. A typographical error—\$1,000 instead of \$925—was corrected by typing \$925 on another piece of paper and pasting it over the error.

The projector can be adapted for use in various size classrooms by means of lenses of different focal lengths. An image of 8'×8' will be produced by the 5 inch lens at a distance of approximately 30 feet; by the 3½ inch lens at 20 feet; and by the 7½ inch lens at 40 feet.

This type of machine because its fan is noisy, can be used more effectively if it is placed behind the students. The fan is necessary because of the high wattage of the lamp required to permit projection in a lighted room.

Any type of white surface is suitable for use as a screen for black and white pro-

jection. We use white walls, large window blinds painted white, and glass beaded screens.

Almost any classroom is suitable for projection but the students should be seated within a 60 degree angle as they face the screen in order to see the image clearly. There is some distortion of the image outside of that angle.

It is desirable to reduce the illumination of the room to some extent but sufficient light may be admitted to permit students to read and take notes. However, light should not strike directly on the screen because it will dim the image.

The image should be left on the screen long enough for the students to study the illustration. It is a common error to go too fast.

We are enthusiastic about the 2×2 slides as a means of presenting illustrative material to students. We are sure that we are doing a more effective job of teaching at a very low cost. The greatest compliment on our program has consisted of the requests of students for transfers to sections where slides were being used.

IS SURPLUS *THE* RESERVE?

GEORGE F. WYMAN

A PROVOCATIVE LETTER appearing in Section II of the *N.A.C.A. Bulletin* for January 15, 1948, and written by Don E. Schmidt, contains a proposed display of earned surplus for statement purposes in which this item is shown to be made up of reserve balances. This inspires the entirely logical thought that it is not within the province of a corporation to hold earnings in its accounts except as, in the judgment of the management, their retention may serve a purpose and raises the further thought that surplus may turn out to be no such thing but simply a reserve, perhaps the only reserve appropriate to corporate accounting.

THE PRIMA FACIE CASE

The idea is instantly attractive, for if it should prove to be sound it suggests a solution of two of the most difficult problems of statement terminology. If the proposal is applied, the word "reserve," now used on both sides of the balance sheet in a number of senses, is made to disappear except as the descriptive caption for retained earnings in the net worth section. In this capacity it regains more of its dictionary meaning, shaking off the sundry technical connotations involved in the miscellaneous uses to which it has been put. At the same time the word "surplus" disappears from accounting vocabulary, relieved of a use which has long troubled accountants and misled lay readers. A case for this change in accounting terminology may be made on the basis that it substitutes clarity for confusion and is based on the employment of words for special purposes without violating their place in the language. However, it may well require a still stronger showing of benefits before such a change can gain acceptance.

SIGNIFICANCE OF THE PROPOSAL

A little later in this presentation an endeavor will be made to show briefly that such benefits are real and tangible and apply to matters which concern management and stockholders almost daily. For the moment it may be noted that redefinition of the word "reserve" for accounting purposes is proposed not only to clear accounting terminology of present varied uses but, more important, to provide appropriate terminology for starting and maintaining a type of accounting, not now in vogue, which would extend to accumulated earnings and perhaps also to the disposition of annual earnings. So-called surplus reserves, of course, have not been unknown but, oddly enough, they have by no means always been disclosed as related to surplus. The latter has commonly been considered to be homogeneous in content and to be accounted for in its entirety only. This is to ignore the facts—among others—that economic conditions change, enterprises expand, working capital requirements vary, and even that management stewardship exists. Up to the present time, management has had the responsibility for deciding what earnings to keep for the needs and purposes of an enterprise without having a place in the accounts and financial statements where the dictates of prudence may be given matter-of-fact portrayal.

It will at once be observed that it would be possible to institute accounting for retained earnings without doing away with the word "surplus" or its replacement by the word "reserve." It is true that the accounting proposal and the terminology proposal here made could be considered separately. It is also true that they may be considered effectively together. If the

more obvious reasons for omitting to distribute earnings as dividends are singled out for thought, it will be quickly comprehended that the earnings are in fact reserved for special purposes or contingencies. If it be contended that, as related to the income statement, valuation and liability reserves under present practice represent amounts reserved from profits, it should also be discernible that this is so only in the sense that all costs and expenses are offset to revenue. These so-called reserve provisions ordinarily consist of estimates of such costs or else of losses in value, differing from other costs and losses only in the absence of exact determination of amounts.

ENTRENCHMENT OF PRESENT USAGE

There are a number of definite obstacles to the proposed changes in terminology. The first, although perhaps not the greatest, is the presence of the word "reserve" in perhaps half a dozen usual or frequent balance sheet captions from which it would be banished if only the earnings held in a business are to be called reserve. There is more than a hope that this obstacle could be surmounted. Valuation reserves are known to be, in substance, deductions from assets either for estimated unrealizable amounts or for portions of original or gross asset amounts already charged to costs. Liability reserves are estimates of amounts ultimately to be paid out to third parties. Substitute captions on an experimental basis are rather easily thought up in all these directions and it would appear to be quite within the field and talents of accountants to make an appropriate selection among them. "Estimated uncollectible portion," "accumulated depreciation and obsolescence," "estimated liability for," and "actuarial estimates of" are doubtless far from final determinations of phraseology which might result from this selection process. They do illustrate, nonethe-

less, how readily substitute wording comes to mind for those balance sheet items in which the protective force of the word "reserve" may perhaps be regarded as buried at present writing. Even accountants trained to couple provisions in the operating statement with reserves in the balance sheet may well be able to disjoin the two words with a little deliberate effort.

The greatest difficulty in any attempt to effect a change-over from the present diverse employment of the term "reserve" to a sole use to designate retained earnings in the net-worth section of the balance sheet is likely to stem from the presence of former usage of both the terms "reserve" and "surplus" in the literature of official bodies and of accounting itself. Reserves as currently labeled are pretty well embedded in terminology in use by the Securities and Exchange Commission and, to a lesser extent, the Bureau of Internal Revenue, not to mention the gamut of accounting textbooks and special writings in the field. These are studded, almost perforated, with the term in its present uses.

It may be objected also that if the word "surplus" as applied to earnings held for corporate purposes, is discarded, the necessity of finding a new name for additions to invested capital, hitherto called capital surplus, would arise. However, a deficit would still be a deficit. Capital is impaired and there is no reserve.

ACCOUNTING FOR EMPLOYMENT OF EARNINGS

Because of the difficulties and inconveniences which would almost certainly attend application of the proposal, it may be well to repeat on its behalf that reserving the term "reserve" exclusively for the net worth section of the balance sheet would not only resolve problems of statement terminology which have long been vexatious but would also introduce a ready

technique for accounting on a cumulative and annual basis for earnings withheld from distribution. It must be kept in mind that to hold such earnings or to declare them as dividends is discretionary with the directors of a company. Nevertheless, stockholders and official bodies have a reasonable interest in the considerations governing retention of earnings and, as long as such earnings continue to be designated as surplus, there is a presumption in the language that they are held arbitrarily. A look at the presentation suggested in Mr. Schmidt's letter, which lacks only the deletion of the offending word from the main caption, will serve as one among many reminders that such is not the case. If retained earnings are known to be reserve, the way is opened to account for them in terms of general and specific purposes which will reflect the judgment of management and will not bear the implication of corporate hoarding.

The technique of reserve presentation under the proposal would have to evolve like any other. Accounting for accumulated, as distinguished from annual, earnings involves the balance sheet. If capital stock and long-term debt may be presumed to stand contra to fixed assets, a portion of the reserve would, in the case of most growing companies, be shown to relate to the portion of fixed assets not so covered and hence to constitute a reserve for retention of operating capacity. Upon the same presumption a portion of the reserve would in all cases be designated to represent working capital needs. This would by no means necessarily have to be the same as working capital derived from other figures on the balance sheet. Under present conditions many managements would wish to assign a portion of the reserve to prospective fixed asset replacement requirements and to contingencies resulting from economic conditions.

EFFECT ON THE INCOME STATEMENT

Of even greater interest currently is the possible solution, flowing from the assignment of the worth and idea of reserve to the present surplus account, to the problem of determining the amount of annual net income in accordance with accepted accounting principles without at the same time raising a presumption that the amount shown is or ought to be made available as dividends. Management literature and company reports are perhaps painfully full at the present time of evidences of a struggle to make clear that prudent conduct of business and prudent statement of results in a period of progressive inflation must recognize special current needs and the possibility or even likelihood of ultimate losses. Prices governing replacement of inventory and property and the hazard of close-of-cycle deflation are most commonly cited.

It is well within the acknowledged sphere of management to make reservations of current or past profits for these and other purposes, but accounting has heretofore provided no vehicle in the field of net-worth accounting to aid in expressing the reasonable nature of such reservations. This is true to such an extent that the strong temptation exists, yielded to in some cases, to represent that the amounts in question were not earned to begin with. This results in providing for future events by charge to current profits and loss. If, on the other hand, all retained earnings are reserve and if nothing else is reserve, the discretion of management may be set forth with some purport of authority in the several reserve sections or subaccounts making up the reserve account as a whole.

Beyond this, with respect to the income statement, there can be rather little objection under these conditions to placing beneath the item of net profit, with which the statement terminates, a group of per-

haps four or five items in aggregate agreement therewith. These would embody management's present, although not necessarily final, decision covering the disposition of current income, whether to replacement, contingency, or other specific segregations of reserve. This tabulation might leave to one of these segregations, perhaps to be called "balance of reserve," the amount within which dividend declarations out of the year's earnings might take place.

A RECORD OF MANAGEMENT
DETERMINATIONS

It is true that introduction of a new accounting convention calling for descriptive analysis in financial statements of earnings kept for corporate purposes might operate to expose situations in which such retentions were unnecessarily large. In these cases the attempt to assign reserve labels to parts or to the whole amount might prove a give-away to the condition. The suggested new terminology and related technique and convention would doubtless

be unwelcome under such circumstances. It may also be expected that the Bureau of Internal Revenue would take an interest in reserve analysis in all cases with Section 102 of the Internal Revenue Code in mind, and perhaps others also. Nevertheless, it is quite within reason to suppose or even to contend that most companies would find themselves a great deal better prepared to withstand such external inspections if their books of account, or at least authoritative records as reflected in published statements, carried from year to year concrete and fairly detailed evidence of the mature judgment of the management on the subject of retaining a portion of accumulated earnings in reserve. In addition to the internal advantages which have been cited, there may be added the expectation that continuity of company financial policy would almost certainly suffer less from lack of corporate memory or change in management personnel, if reserve accounting for earnings were instituted and maintained.



PRESENTATION OF LONG-TERM LEASE LIABILITIES IN THE BALANCE SHEET

JOHN H. MYERS

IN THE LAST FEW years the increasing emphasis on the income statement has had a tendency to make the balance sheet a subsidiary schedule. I sometimes have been on the verge of believing that its sole purpose was to serve as a resting place for debits not yet absorbed by the income statement. However, the balance sheet is an important statement in its own right, even granting such inadequacies in satisfying certain purposes as recording different fixed assets at different price levels. For one thing it is useful in studying the financial condition of a company. A most important point in a study of short-term condition is a consideration of the current-asset and current-liability sections. In a study of long-term financial condition the entire liability side is important in that it represents claims against the company and indicates the source of the funds with which the assets were obtained.

All of the information presented on the income statement and balance sheet could be presented in text form. Considerably more detail and explanatory comments might be included. However, such a procedure would be most inconvenient and perhaps would conceal much by mere confusion. The two formal accounting statements thus are most useful as a kind of shorthand to condense, to classify, and to bring out important facts. If each practitioner were to use a completely different shorthand system, chaos would result. Hence, a body of conventions and principles has arisen. The prime objective of each convention or principle has been to disclose fairly the financial condition and results of operations. As new business conditions and practices have evolved, it has been necessary to alter the previous con-

ventions and principles or to adopt supplementary ones. In recent years a new business procedure has been evolving which requires a reappraisal of today's body of conventions and principles. It is the acquisition of plant and equipment through use of a long-term lease rather than through the more traditional method of outright purchase frequently coupled with a long-term mortgage loan. This newly important financing procedure calls for some further evolution in the body of accounting conventions and principles if they are to continue to present fairly the financial condition.

The recent agreement between Continental Can Company and the New York Life Insurance Company is a case in point. Toward the close of 1946 an agreement was reached in which New York Life agreed to purchase \$10,000,000 of land and buildings and to lease them to Continental Can for a long term of years. Continental Can and its auditors followed the accepted accounting conventions and principles and gave no accounting recognition to the agreement other than the necessary accrual, if any, for lease rentals due on December 31, 1946. The president's report to stockholders gives the story of the lease, but so far as the formal financial statements (including notes) are concerned, it is unreported. The company's balance sheet (highly condensed) is as follows:

(In Millions)			
Current assets	\$ 94	Current liabilities	\$ 21
Investments, etc.	7	Reserves and other credits	10
Fixed assets	\$132	Debentures	34
Less reserve	50	Preferred stock	15
	<hr/>		
Prepaid and deferred items	1	Common stock & surplus	104
	<hr/>		<hr/>
	\$184		\$184
	<hr/>		<hr/>

If the transaction had been handled in the more traditional fashion involving purchase and loan, the balance sheet would have shown the following:

(In Millions)			
Current assets	\$ 94	Current liabilities	\$ 21
Investments, etc.	7	Reserves and other credits	10
Fixed assets	\$142	Debentures	44
Less reserve	50	Preferred stock	15
Prepaid and deferred items	1	Common stock & surplus	104
	<u>\$194</u>		<u>\$194</u>

Here, then, are two different balance sheets representing conditions identical in every respect except the legal matter of ownership and perhaps the schedule of payments due to the company supplying the funds. Because of this difference many ratios frequently calculated by an investment analyst would be different. For example, the turnover of fixed assets would be higher under a lease rental agreement than under the traditional borrow and purchase contract, the ratio of debt to total capital would be lower as would the ratio of depreciation to sales. Of course, a good analyst should not be fooled by such differences. He has been accustomed to this same type of lease agreement in the railroad field in connection with leased lines. It has been said that all an analyst needs is the information; the form in which it is put is immaterial. He could obtain the information from a textual presentation. The accounting shorthand of an income statement and balance sheet is also acceptable as long as he can interpret it; he has been trained in the accountant's techniques and therefore can understand his shorthand.

No change need be made in the present conventions and principles to give the analyst his information about a new long-term lease and its effect upon the various ratios. But what about the casual reader of the statements? He will

not take the time to analyze the data in the same manner even if he has had the necessary background. Some would go so far as to say he wouldn't understand the situation anyway, so why try to pamper him and make him think he understands? I am happy to say that this is not the viewpoint adopted by the leaders of the accounting profession and their professional societies. Accountants have adopted the premise that accounting statements are to be informative. It is recognized that many readers of the statements are not technically trained along this line and efforts have been made to make the statements as self-explanatory as possible and to educate the readers by other means. The American Institute of Accountants has published recently a pamphlet titled *What Does the Auditor's "Certificate" Mean?* This was written for such technically trained people as loan officers of banks. Considerable effort also has been spent in an attempt to make accounting facts understandable to the employees of large corporations. Therefore, since the goal of accountants is to present information, it would be desirable if the financial statements could be prepared in such a way that the liabilities incurred by the acquisition of a new plant financed by new capital would be presented uniformly regardless of the schedule of payments and legal details of title.

Case 1: If a company were to borrow \$10,000,000 at 3 per cent for ten years and then use the proceeds to buy a plant having a useful life of ten years with no scrap value, both the \$10,000,000 plant and the \$10,000,000 debt would appear on the balance sheet. Annually, there would be a charge of \$1,000,000 for depreciation and of \$300,000 for interest. At the end of the ten-year period the plant would have been depreciated in full (and would stand on the books at zero value on the basis of the original assumption), the debt would be

repaid. Neither would appear on the balance sheet. The income statements over the ten years would have shown a charge of \$13,000,000 for the use of the plant financed with someone else's funds.

Case 2: However, it is unlikely that such a loan agreement would be acceptable to the creditor, as the amount of the loan exceeds the value of the asset from the moment depreciation starts taking place. The creditor would be likely to insist upon principal repayments at least equal to the decline in value of the related asset. An agreement might be worked out calling for equal payments at the end of each year, each payment to include interest and principal and to be of such amount that the entire debt is discharged by ten such payments. Assuming annual compounding of interest, one finds the annual payment to be \$1,172,305. Ten of these payments completely discharge the debt and represent the cost of using the plant for ten years with outside funds. The total cost is \$11,723,050 as compared to \$13,000,000 in the case above because principal is repaid periodically. The borrowing company might have invested the cash being accumulated for principal repayment. The interest thereon would reduce the total effective cost of using the plant for ten years and thereby a net cost would result somewhat comparable to that obtained under this second case.

Under Case 2 the use of straight-line depreciation would result in the book value of the plant being lower than the outstanding debt on each of the balance sheets prepared during the life of the loan as indicated on Schedule A. Also note that the annual charges to income would not be uniform.

SCHEDULE A

The use of the sinking fund method of depreciation¹ would remedy these difficulties as indicated in Schedule B.

SCHEDULE B

Case 3: However, even the mortgage and agreement to repay part of the principal annually might not be adequate security for the creditor. He might prefer to retain title to the plant himself and to lease it to the user for \$1,172,305 per annum for ten years. At the end of the time the plant would belong to the creditor instead of the debtor, but, for this discussion it is immaterial as it is assumed that the plant will have no further useful life or scrap value. The accounts involved under this agreement would differ from those under Schedule B in the second case, but the net effect upon the income statement would be the same each year; i.e., a charge of \$1,172,305. However, the balance sheets in the cases would be substantially different. Should that be the case? All facts are identical except for the legal device used by the creditor to protect himself; the same obligation to pay is present, and the same right to use the plant is present. Certainly the legal difference should be disclosed, but I think it improper in Case 2 to show the asset and liability on the balance sheet and to ignore it in Case 3. Accountants are not blinded or tied by legal technicalities. The whole theory of consolidated balance sheets is based on looking through the legal details to see the broader economic facts. I believe the same idea should be applied in recording the acquisition of a plant with the use of outside funds; i.e., look through the legal details and record the broad economic facts of the case.

Case 4: In order to present under a lease-rental agreement the same financial picture as obtained under a borrow-purchase agreement, it is necessary to record as an asset the right to use the plant and as a liability the present value (discounted

¹ Illustrated in H. A. Finney, *Principles of Accounting, Intermediate* (3rd ed., New York: Prentice-Hall, Inc., 1946), p. 330.

SCHEDULE A

Year	Net Book Value of Plant	Depreciation	Interest	Cash	Bond	End of Year Balance
	End of Year					
	Dr.	Dr.	Dr.	Cr.	Dr.	
1	9,000,000	1,000,000	300,000	1,172,305	872,305	9,127,695
2	8,000,000	1,000,000	273,831	1,172,305	898,474	8,229,221
3	7,000,000	1,000,000	246,877	1,172,305	925,428	7,303,793
4	6,000,000	1,000,000	219,114	1,172,305	953,191	6,350,602
5	5,000,000	1,000,000	190,518	1,172,305	981,787	5,368,815
6	4,000,000	1,000,000	161,064	1,172,305	1,011,241	4,357,574
7	3,000,000	1,000,000	130,727	1,172,305	1,041,578	3,315,996
8	2,000,000	1,000,000	99,480	1,172,305	1,072,825	2,243,171
9	1,000,000	1,000,000	67,295	1,172,305	1,105,010	1,138,161
10	0-	1,000,000	34,144 ^a	1,172,305	1,138,161	0-
Totals		10,000,000	1,723,050	11,723,050	10,000,000	
			11,723,050			

^a Figure is \$5 less than 3 per cent on balance at beginning of year. This is to adjust for error in carrying computations to nearest dollar.

SCHEDULE B

Year	Net Book Value of Plant	Depreciation	Interest	Cash	Bond	End of Year Balance
	End of Year					
	Dr.	Dr.	Dr.	Cr.	Dr.	
1	9,127,695	872,305	300,000	1,172,305	872,305	9,127,695
2	8,229,221	898,474	273,831	1,172,305	898,474	8,229,221
3	7,303,793	925,428	246,877	1,172,305	925,428	7,303,793
4	6,350,602	953,191	219,114	1,172,305	953,191	6,350,602
5	5,368,815	981,787	190,518	1,172,305	981,787	5,368,815
6	4,357,574	1,011,241	161,054	1,172,305	1,011,241	4,357,574
7	3,315,996	1,041,578	130,727	1,172,305	1,041,578	3,315,996
8	2,243,171	1,072,825	99,480	1,172,305	1,072,825	2,243,171
9	1,138,161	1,105,010	67,295	1,172,305	1,105,010	1,138,161
10	0-	1,138,161	34,144 ^a	1,172,305	1,138,161	0-
Totals		10,000,000	1,723,050	11,723,050	10,000,000	
			11,723,050			

^a Figure is \$5 less than 3 per cent of balance at beginning of year. This is to adjust for error in carrying computations to nearest dollar.

at the proper rate) of all the payments to be made in the future. If the facts are the same as those in Case 3 (lease for ten years a plant the useful life of which is ten years with no scrap value at an annual rental of \$1,172,305), the initial entry would be:

Right to use leased
plant \$10,000,000
 Present value of
 leasehold
 obligation \$10,000,000
(More concise account titles might be devised.)

The \$10,000,000 figure was obtained by finding the present value of ten payments of \$1,172,305 at the end of each year, discounted at 3 per cent. Three per cent was used as that is the rate it was assumed the company would have to pay to borrow the

money in Case 1. At the end of each year journal entries would be necessary to record the disbursement of cash, the reduction of the principal of the obligation, the diminution of the asset, and the charge to income to cover the current period's share of the \$11,723,050 total cost for the use of the plant. Schedule C gives the details for the year-end entry and the final balance of pertinent accounts at the end of each year.

SCHEDULE C

The net effect of the entry is to absorb against income a uniform annual charge of \$1,172,305, to write down the asset in accordance with the sinking fund method of depreciation, and to reduce the liability by exactly the same amounts that were proper

SCHEDULE C

Year	Right to Use Leased Plant End of Year Balance	Leasehold Expense Depreciation Element	Interest Element	Cash		Present Value of Leasehold Obligation	
	Dr.	Dr.	Dr.	Cr.		Dr.	Bal.
1	9,127,695	872,305	300,000	1,172,305		872,305	9,127,695
2	8,229,221	898,474	273,831	1,172,305		898,474	8,229,221
3	7,303,793	925,428	246,877	1,172,305		925,428	7,303,793
4	6,350,602	953,191	219,114	1,172,305		953,191	6,350,602
5	5,368,815	981,787	190,518	1,172,305		981,787	5,368,815
6	4,357,574	1,011,241	161,064	1,172,305		1,011,241	4,357,574
7	3,315,996	1,041,578	130,727	1,172,305		1,041,578	3,315,996
8	2,243,171	1,072,825	99,480	1,172,305		1,072,825	2,243,171
9	1,138,161	1,105,010	67,295	1,172,305		1,105,010	1,138,161
10	0-	1,138,161	34,144 ^a	1,172,305		1,138,161	0-
Totals		10,000,000	1,723,050	11,723,050		10,000,000	

^a Figure \$5 less than 3 per cent of balance at beginning of year. This is to adjust for error in carrying computations to nearest dollar.

in Case 2 when an equal liability was repaid by equal annual installments covering principal and interest.

On the balance sheet the present value of the leasehold obligation should be listed almost as another bond issue because of the similarity of nature. The asset should appear with the other fixed assets—possibly on a separate line if it is felt necessary to emphasize the different legal rights to its use. Such statement of the asset at present value of the payments to be made therefore is not a violation of the principle of recording fixed assets at cost. The promised payments in the future are a cost as much as a payment of a sum at the present time. Complication arises only because the future payments contain an interest element which would not enter the picture were the complete payment to be made when use of the asset is acquired.

The treatment on the income statement is simple for those adherents to the single step form. "Plant Lease Expense" would be an adequate title. For those who believe in the multi-step form, there are arguments for dividing the expense according to its elements, depreciation and interest, and showing each in its usual place.

In all of the above cases the factors of insurance, taxes, and maintenance were ignored for the sake of simplicity. In the

case of outright ownership by the user, he would be liable for all these expenses. In today's lease agreement there is frequently a provision that the lessee is to bear all such costs either by paying them directly or by increasing the annual rental by an amount sufficient to cover these costs. In the case where the lease-rental is a single figure and the lessor is to bear these costs, a division may be made to arrive at a figure comparable to the lease-rental used in the previous illustrations.

The above cases all assumed that the plant would have no value whatsoever at the end of the ten-year period. Such a situation is very rare; at least a land value could be expected to remain. In this altered situation legal ownership makes a material difference, as it determines who is to receive the future benefits of the residual value. Some of the long-term lease agreements being executed today contain a provision that the lessee may continue to rent the plant for a future period at a low, if not nominal, figure. This provision tends to nullify that difference arising due to a residual value. The details of accounting recognition of such residual values would have to be worked out for each individual case.

The use of a discounting rate of 3 per cent in Case 4 was readily understandable

from the development of the discussion. It was the rate the company would have had to pay had it borrowed the money in the traditional manner with the same security provisions for the benefit of the creditor. However, the discount rate to use in an actual case may not be as evident. It is essential that the proper rate be determined, for the use of different rates severely affects the computed present value of a series of payments. For example, on the ten-year illustration used in the previous discussion an increase in the rate from 3 per cent to 4 per cent would reduce the present value to be shown on the balance sheet by 5 per cent. Had this been a thirty-year lease, the present value would have been reduced 12 per cent by a shift in the discount rate from 3 per cent to 4 per cent. In the case of such long-term lease agreements as those of Continental Can, an objective determination of the discount rate should not prove difficult. The contracting parties, or at least the creditor which is usually one of the outstanding financial institutions of the country, have in mind some rate on which they base their calculations. The auditor may know the rate directly from having participated in the discussions or he may obtain it by correspondence with the creditor. As a further check it is often possible, as in the Continental Can case, to determine the value of the assets subject to lease and to compare that to the computed present value.

This idea of recording a lease obligation at its present value is, on the surface, distinctly contrary to conventional accounting practice. The argument presented by the practitioners against this method is three-fold. First, accounting principles call for the recognition of a liability for statement purposes only when value has been received and an asset only when it legally belongs to the company. Second, the arbitrariness of selecting the discount and

the consequences of different possible selections introduce an element of conjecture into a balance sheet not arising under the cost principle of recording assets. Third, mathematical computations and varying sized annual entries unduly complicate matters beyond the range of the average bookkeeper.

The third objection can be disposed of readily. The independent public accountant certainly is present when such a lease transaction is under consideration. At that time he can prepare a schedule of entries to be used during the life of the lease. This schedule can be given to the bookkeeper, a copy retained in the accountant's permanent file, and the adjustment made at the close of the year. No certified public accountant would admit inability to prepare such a schedule; though the mathematical details might slip, there is always a junior with the method still fresh in mind.

The second objection to the recording of a lease-rental at its present value has been discussed in preceding paragraphs. The first is probably the most difficult to overcome as its root was planted early in the education of every accountant, but the argument for fair presentation is more significant than adherence to tradition. Also, when the reasons for the formation of the lease contract are examined, the existence of an asset is clear. The obligation would not have been created unless the lessee felt he was receiving more value than he had agreed to part with. The definiteness of the liability cannot be ignored. In fact, what does a \$10,000,000, 3 per cent ten-year bond contract represent to a company? It represents:

- A. An obligation to make payments of \$300,000 at the end of each year for ten years (continuing the assumption of annual payments)
- B. An obligation to pay \$10,000,000 in ten years

Assuming a rate of 3 per cent for discounting purposes the following values appear:

A.	\$ 2,559,061
B.	7,440,939
Total	<u>\$10,000,000</u>

Today the accountant readily recognizes that a discount or premium arises only because the discount rate is above or below the coupon rate. The subtraction of the discount or addition of the premium to the principal of the bond issue is merely a recognition (understood or otherwise) of the fact that the present value of the two obligations is recorded on the balance sheet. In the case of a fifty-year obligation of similar nature the following values occur:

A.	\$ 7,718,929
B.	2,281,071
Total	<u>\$10,000,000</u>

The major part of the \$10,000,000 liability recorded in this case is the present value of the coupons—a series of future payments exactly comparable to those under a lease obligation. Thus recording liabilities at present value is not new.

The proposal to present on the balance sheet the present value of the liability under a long-term lease is merely a new

application of the traditional (though often unrecognized) method of presenting long-term bond liabilities. The corresponding asset would be the right to use the premises or equipment for a period of years. It represents cost as surely as cost would be represented if the asset had been purchased subject to mortgage. Amortization of the asset will be handled under the usual depreciation procedures, and amortization of the liability handled by recognition of the principal element of each periodic payment under the lease. This proposal for adapting accounting conventions and principles is made in response to the growing importance of acquiring fixed plant through long-term leases instead of the traditional purchase-mortgage procedure. The adoption of the proposal is necessary if the same economic condition, regardless of legal technicalities, is to be presented in the same manner on a balance sheet much as it is necessary to adopt consolidated balance sheets when separate corporations operate as a branch of the parent. The adoption of this procedure would also prevent any advantage being reaped from the dubious practice of non-consolidation of subsidiaries created for the sole purpose of owning and borrowing against equipment which is leased to the parent company for its operations.

THE INCOME STATEMENT AND ITS SIGNIFICANCE IN FINANCIAL REPORTING

VIRGIL S. TILLY

THE DEVELOPMENT OF the corporate form of organization continues to emphasize the primary importance of the income statement in financial reporting. A few years ago the balance sheet was considered to be of primary importance. Even now some think that the submission of a balance sheet is adequate. Those versed in accounting know that both the balance sheet and the income statement are needed in order reasonably to appraise the financial condition of an enterprise at a given moment. The general introduction of Bulletin No. 1 issued in September, 1939, by the Committee on Accounting Procedure of the American Institute of Accountants reads as follows:

In presenting its first statements of the results of studies of accounting questions, it seems desirable that the committee indicate the standpoint from which it has approached the subject. Its present and future pronouncements should be read in the light of these remarks.

The committee regards corporation accounting as one phase of the working of the corporate organization of business, which in turn it views as a machinery created by the people in the belief that, broadly speaking, it will serve a useful social purpose. The test of the corporate system and of the special phase of it represented by corporate accounting ultimately lies in the results which are produced. These results must be judged from the standpoint of society as a whole—not from that of any one group of interested parties.

The uses to which the corporate system is put and the controls to which it is subject change from time to time, and all parts of the machinery must be adapted to meet such changes as they occur. In the last forty years the outstanding change in the working of the corporate system has been an increasing use of it for the purpose of converting into liquid and readily transferable form the ownership of large, complex, and more or less permanent business enterprises. This development

brought in its train certain uses of the processes of law and accounting, which have led to the creation of new controls, revisions of the law, and a reconsideration of accounting procedure.

As a result of this development in the field of accounting, problems have come to be considered more from the standpoint of the current buyer or seller in the market of an interest in the enterprise than from the standpoint of a continuing owner. The significance of this change is perhaps not yet fully appreciated, and whether or not the rapid exchange of owners is beneficial to society is a large and important question which society itself should carefully consider; but as long as the practice exists accounting must have due regard for it.

One manifestation of it has been a demand for a larger degree of uniformity in accounting, although it may be pointed out that the change of emphasis itself is bound to lead to the adoption of new accounting procedures, so that for a time diversity of practice is likely to be increased as new practices are adopted before old ones have become completely discarded. It is of interest to point out that "uniformity" has usually connoted a similar treatment of the same item occurring in many cases, in which sense it runs the risk of concealing important differences between the cases. Another sense of the word would require that different authorities, working independently on the same case, should reach the same conclusions. This at any rate is an ideal which all will agree to strive for, and perhaps is more readily attainable.

Other phases have been increased recognition of the significance of the income statement, with a resulting increase in the importance attached to conservatism in the statement of income, and a tendency to restrict narrowly charges to earned surplus. The result of this emphasis upon the income statement is a tendency to regard the balance-sheet as the connecting link between successive income statements and as the vehicle for the distribution of charges and credits between them. Important as this concept is, however, it should not obscure the fact that the balance-sheet has significant uses of its own.

Since 1939 thirty-three Accounting Research Bulletins have been issued by the

Committee on Accounting Procedure of the American Institute of Accountants and, indicative of the recognition of the importance of the income statement in financial reporting, with a few exceptions they treat primarily of the income statement. The objective has been to narrow the area of difference in practice and to establish a basis of greater uniformity with respect not only to the composition of items included in the income statement, but also as to their presentation.

In attaining these objectives, we must recognize that the income statement should be informative and it should reflect the facts in accordance with accepted accounting practice. It must meet the needs and requirements of the "non-insider," for it is recognized that the "insider" by comparison is already well informed regarding the financial condition of the business enterprise. It is the "non-insider" who must be assured of the integrity of financial statements if accounting is to contribute usefully to the needs of the corporate organization and to its favorable development in an atmosphere of private enterprise. It is for the millions of investors as represented by stockholders and bondholders, and for government and for the public for whom we are particularly directing our purpose in the study and establishment of accounting practices that will best assure informative and consistent income statements.

Let us review, therefore, the considerations whereby income statements can be most informative and whereby "non-insiders" can rely on uniformity of content and consistency in application. First, what are the means by which we can best insure that income statements will be most informative? Bulletin No. 32 on "Income and Earned Surplus" issued in December, 1947, by the Committee on Accounting Procedure brings us currently up to date with respect to that feature. This bulletin

reviews the thinking of the proponents of the "all-inclusive" type of income statement and the thinking of those who advocate the "current operating performance" type of income statement, and concludes and so recommends that the "current operating performance" type of income statement will better assure informative income statements. The substance of the controlling statements in Bulletin No. 32 may be summarized as follows:

First, that in "selecting the most useful form of income statement, the danger of understatement or overstatement of income must be recognized. An important objective of income presentation should be the avoidance of any policy of income equalization."

Second, that the word "income" is used to describe a general concept, not a specific and precise thing."

Third, "that the income statement is based on the concept of the 'going concern'."

Fourth, that "It is at best an interim report. Profits are not fundamentally the result of operations during any short period of time. Allocations as between years of both charges and credits affecting the determination of net income are, in part, estimated and conventional and based on assumptions as to future events which may be invalidated by experience. While the items of which this is true are usually few in relation to the total number of transactions, they sometimes are large in relation to other amounts in the income statement."

Fifth, "That the ultimate distinction between 'operating' income and charges and 'non-operating' gains and losses, terms having considerable currency in the accounting profession, has not been made. The former are generally defined as recurrent features of business operation, more or less normal or dependable in their incidence from year to year; the latter are gen-

erally considered to be irregular and unpredictable, more or less fortuitous and incidental."

Sixth, "That the term 'net income' has been used indiscriminately and often without precise, and most certainly without uniform, definition in the financial press, investment services, annual reports, prospectuses, contracts relating to compensation of management, bond indentures, preferred stock dividend provisions, and in many other places."

Seventh, that "The above facts with respect to the income statement and the income which it displays, make it incumbent upon readers of financial statements to exercise great care at all times in drawing conclusions from them."

Both groups, namely, the "all-inclusive" group and the "current operating performance" group agree on the above statements. These two groups differ as to the form of presentation in which net income is designated. The "all-inclusive" group believe that

... net income is defined according to a strict proprietary concept by which it is presumed to be determined by the inclusion of all items affecting the net increase in proprietorship during the period except dividend distributions and capital transactions. . . . They insist that an income statement including all income charges or credits arising during the year is simple to prepare, is easy to understand, and is not subject to variations resulting from the different judgments that may be applied in the treatment of individual items. . . . With a full disclosure of the nature of any special or extraordinary items, this group believes the user of the financial statements can make his own additions or deductions more effectively than can the management or the independent accountant.¹

The "all-inclusive" group contends

... that those supporting the "current operating performance" concept are mainly concerned with

establishing a figure of net income for the year which will carry an implication as to future earning capacity. Having made this presumption, they contend that income statements should not be based on the "current operating performance" basis because income statements of the past are of only limited help in the forecasting of the earning power of an enterprise. This group also argues that items reflecting the results of unusual or extraordinary events are part of the earnings history of the corporation, and accordingly should be given weight in any effort to make financial judgments with respect to the company.²

In substance, this group believes that in the presentation of net income for the year there should be included all items which reflect the change in proprietorship interest except dividend distributions and additions and reductions to capital. In my opinion, this group disregards the effect in the determination of net income for the year of transactions which arise and are culminated either from choice of management or as effects from outside forces in the form of nonrecurrent "windfalls" or disasters. For example, in a particular year the management may choose to realize a material gain or loss from the disposition of property, yet the "insiders" know that this gain or loss actually arose in other years. The income-tax refund resulting from a carry-back, even though material in amount, would be reflected as a transaction of the year in the determination of net income. A loss from a disaster, for example, a tornado, a blast such as occurred in Texas City, destruction arising from war conditions, items that are material in amount and are nonrecurrent and may never occur again, would be subtracted in the determination of net income for the year. Many disagree with this concept, for they think that our experiences in the practice of public accounting reveal to us that the "non-insider" is more likely to be misled in his understanding of the financial condi-

¹ *Accounting Research Bulletin No. 32* (New York, American Institute of Accountants, December, 1947): pp. 260-261.

² *Ibid.*, p. 261.

tion of the business enterprise by that method of presentation than he would with a form of presentation whereby the transactions would be presented in a classification and sequence that would more reasonably accord with happenings and transactions that occurred in the usual course during the year.

Those who advocate the "current operating performance" type of income statement generally do so because they are mindful of the particular business significance which a substantial number of the users of financial reports attach to the income statement. They point out that, while some users of financial reports are able to analyze a statement and eliminate from it those unusual and extraordinary items that tend to distort it for their purposes, many users are not trained to do so. Furthermore, they contend it is difficult at best to report in any financial statement sufficient data to afford a sound basis upon which the reader who does not have an intimate knowledge of the facts can make a well considered classification. They consider it self-evident that management and the independent auditors are in a stronger position than outsiders to determine whether there are unusual and extraordinary items which, if included in the determination of net income, may give rise to misleading inferences with respect to current operating performance. Relying on the proper exercise of professional judgment, they discount the contention that neither managements nor the independent auditors, due to the absence of objective standards to guide them, have been able to decide consistently which extraordinary charges and credits should be excluded in determining earning performance. They admit it is hazardous to place too great a reliance on the net income as shown in a single annual statement and insist that a realistic presentation of current performance must be taken for what it is and should not be construed as conveying an implication as to future accomplishments. The net income of a single year is only one of a score of factors involved in analyzing the future earning prospects or potentialities of a business. It is well recognized that future earnings are dependent to a large extent upon such factors as market trends, product developments, political events, labor relationships, and numerous other factors not ascertainable from the financial statements. *However, this group insists that the net income for the year should show as clearly as possi-*

ble what happened in that year under that year's conditions, in order that sound comparisons can be made with prior years and with the performance of other companies. (Emphasis supplied.)³

These advocates

... Join fully with the so-called "all-inclusive" group in asserting that there should be full disclosure of all material charges or credits of an unusual character, including those attributable to a prior year, but they insist that such disclosure should be made in such a manner as not to distort the figure which represents what the company was able to earn from its usual or typical business operations under the conditions existing during the year. They believe that material extraordinary charges or credits may often best be disclosed as direct adjustments of surplus. They point out that a charge or credit in a material amount representing an unusual item not likely to recur, if included in the computation of the company's annual net income, may be so distorting in its results as to lead to unsound judgments with respect to the current earning performance of the company.⁴

In resolving these viewpoints, the Committee on Accounting Procedure has restated its opinion heretofore expressed in Accounting Research Bulletins No. 8 and No. 23 that

... it is plainly desirable that over the years all profits and losses of a business be reflected in net income, but at the same time has recognized that, under appropriate circumstances, it is proper to exclude certain material charges and credits from the determination of the net income of a single year, even though they clearly affect the cumulative total of income for a series of years. In harmony with this view, it is the opinion of the committee that there should be a general presumption that all items of profit and loss recognized during the period are to be used in determining the figure reported as net income. The only possible exception to this presumption in any case would be with respect to items which in the aggregate are materially significant in relation to the company's net income and are clearly not identifiable with or do not result from the usual or typical business operations of the period. Thus, only extraordinary items such as the following may be excluded from

³ *Ibid.*, pp. 261-262.

⁴ *Ibid.*, p. 262.

the determination of net income for the year, and they should be excluded when their inclusion would impair the significance of net income so that misleading inferences might be drawn therefrom:

(a) Material charges or credits (other than ordinary adjustments of a recurring nature) specifically related to operations of prior years, such as the elimination of unused reserves provided in prior years and adjustments of income taxes for prior years;

(b) Material charges or credits resulting from unusual sales of assets not acquired for resale and not of the type in which the company generally deals;

(c) Material losses of a type not usually insured against, such as those resulting from wars, riots, earthquakes and similar calamities or catastrophes except where such losses are a recurrent hazard of the business;

(d) The write-off of a material amount of intangibles, such as the complete elimination of goodwill or a trademark;

(e) The write-off of material amounts of unamortized bond discount or premium and bond issue expenses at the time of the retirement or refunding of the debt before maturity.

Adjustments resulting from transactions in the company's own capital stock, amounts transferred to and from accounts representing a segregation or appropriation of surplus or general contingency and inventory reserves such as those dealt with in Bulletins 28 and 31, and adjustments made pursuant to a quasi-reorganization, should be excluded from the determination of net income under all circumstances.

Consideration has been given to the method of presentation of the extraordinary items that are excluded in the determination of net income under the criteria set forth in the preceding paragraph. Some would carry all such charges and credits directly to the surplus account with complete disclosure as to their nature and amount. Others would report most of those items at the bottom of the income statement immediately following the amount of net income and include them in the determination of the amount carried to surplus. The committee expresses no preference for either of these methods, but is of the opinion that, regardless of the form of presentation, the amount of net income should be clearly and unequivocally designated.

In its deliberations concerning the nature and purpose of the income statement, the committee has been mindful of the disposition of even well-informed persons to attach undue importance to

a single net income figure and to "earnings per share" shown for a particular year. The Committee directs attention to the undesirability in many cases of the dissemination of information in which major prominence is given to a single figure of "net income" or "net income per share." However, if such income data are reported (as in newspapers, investors' services, and annual corporate reports), the committee strongly urges that any determination of "income per share" be related to the amount reported as net income, and that where charges or credits have been excluded from the determination of net income, the corresponding total or per share amount of such charges and credits also be reported separately and simultaneously. In this connection the committee earnestly solicits the cooperation of all organizations, both governmental and private, engaged in the compilation of business earnings statistics from annual reports.⁵

The above recommendations of the Committee have been quoted in their entirety. The recommendations are clearly, understandably, and simply expressed and were adopted by the assenting votes of eighteen members of the Committee. Three members dissented. The dissents primarily express a refusal to recognize that, under certain conditions, some types of these excluded items can acceptably be shown as direct charges or credits to surplus. They insist that these items should enter into the determination of net income. However, they do support the position of the majority of the committee that if the items do appear in one statement, they should be shown in what is called a second section of the statement, separate and apart from the first section which reflects current performance for the year. Few of us, I believe, will disagree with the use of a two-section type of income statement. The Committee approves that type, provided the items in the second section that are excluded by the criteria mentioned above do not enter into the computation of net income, and also approves the optional treatment whereby these excluded items

⁵ *Ibid.*, pp. 263-264.

can be carried directly to surplus. In both instances the Committee recommends full disclosure either through the vehicle of a combined income and surplus statement or by the use of two separate statements, namely, an income statement and an earned surplus statement. This position is clearly expressed above, whereby each optional form of presentation is approved. Those who dissent do not approve of the exclusion of any of the items from the determination of net income and, accordingly, strongly oppose any treatment which would require such charges or credits to be carried to a second statement, namely the earned surplus statement.

In instances where a two-section income statement is used, the "current operating performance" group insists that the figure at the end of the first section shall be designated as net income or net income for the year. The "all-inclusive" group insists that the final figure at the end of the second section shall be so designated. That difference in the designation of net income for the year constitutes the basic and underlying difference between the conception in the thinking of the "current operating performance" group and the "all-inclusive" group. The "current operating performance" group designates the final figure at the end of the first section as net income and the final figure at the end of the second section as a balance carried to surplus.

Generally, and in most instances, both groups would agree that all items of profit and loss for the year should be included in the income statement in the determination of net income for the year. It is with respect to unusual items, material in relationship to the net income of that particular company, that differences in presentation arise.

What then is the nature of the items that would be classified and presented in the second section of an income statement?

For example, the credits would include

a profit realized, material in amount, from the sale of a portion of the fixed properties of the enterprise. It would also include collection of a substantial amount from life insurance on the death of an officer, a refund of a substantial amount on income taxes for prior years, collection of a substantial amount for damages arising from litigation, or an extraordinary profit arising from the disposition of securities or investment in a subsidiary company. Charges or debits would include substantial amounts of additional federal income taxes for a past period, a material loss from the disposition of fixed assets, the charge-off of the unamortized balance of bond discount and expense unrelated to the current period, an extraordinary loss from disasters of a type that is reasonably non-recurrent, or an extraordinary loss from damages in litigation.

Those are typical of the items that, according to Bulletin No. 32, can be classified either in the second section of an income statement or as direct charges and credits to surplus.

In fairness, most of us will concede that Bulletin No. 32 is a noteworthy contribution by the accounting profession towards attainment of one of our objectives, namely, assurance of informative income statements.

If we consider fairly the position of the "non-insider" and accord that group the consideration to which it is entitled, we shall join in insisting upon more adequate disclosure and classification of the significant items contained in an informative income statement. Each of us will recognize that some income statements are submitted in a form so abbreviated that little conception can be had of the extent and nature of the transactions which produced the reported net income for the year. In most instances, full disclosures can be made of the relevant items, so classified in a sequence that is significant

without harm to the reporting company. We do recognize that there are some few instances where operating ratios would be revealed therefrom to competitors with consequent disadvantage to the reporting company. These instances, however, are rare and in almost all instances all interests will be best served through full and adequate disclosure. As members of the accounting profession, we should assert the force of our influence to that end. Also in the interest of the "non-insider," comparative income statements should be submitted, if possible, rather than an income statement for a single year.

Now let us review the progress that has been made with respect to uniformity of content in the income statement and consistency in application of practices related thereto. This review can well relate itself to accounting research bulletins recently issued by the Committee on Accounting Procedure, including the following: Bulletin No. 28, Accounting Treatment of General Purpose Contingency Reserves; Bulletin No. 29, Inventory Pricing; Bulletin No. 31, Inventory Reserves; Bulletin No. 33, Depreciation and High Costs. These bulletins seek primarily to narrow the range of differences that have existed in the presentation of items classified in the categories as they are defined in these respective bulletins. They relate to matters that are current, to matters that are important in that they recognize the needs of "non-insiders" for uniformity in presentation of these types of items in current income statements. The adoption of each of these bulletins was approved in one instance by the approval of all twenty-one members of the Committee, and another by the unanimous approval of the twenty members who voted, and in the case of the other two bulletins by a substantial majority of all the members. Admittedly, these bulletins do not represent the final solution with respect to the issues and problems

treated therein, but they do represent an expression of the progress in thinking on these subjects to date, and they represent great strides forward in further assuring integrity in financial reporting. By adherence to these bulletins, much confusion that otherwise could beset "non-insiders" in seeking to appraise current financial statements will be eliminated. The influence of social, economic, and political developments has a more pronounced effect on business today than ever before, and the fast pace of the changes in these developments present the function of accounting with perhaps the most difficult problems yet faced by it. The presentation and interpretation of financial statements today are particularly difficult. These conditions compel us, therefore, to seek more than ever to narrow the range of differences that have existed in the treatment of similar items, not only as between fiscal periods within the same company, but as between one business enterprise with another.

In Bulletin No. 28 general contingency reserves are clearly defined and by the unanimous approval of the Committee, these types of reserves are excluded in all instances from an income statement in the determination of net income. This means that this type of a reserve cannot be properly shown in the second section of an income statement before the determination of net income, and assuredly not in the first section.

Bulletin No. 29, Inventory Pricing, is directly related in its application to the income statement. The relationship of the problems discussed therein with respect to the balance sheet is of secondary or little importance. Recognition and approval of the several methods employed in recording cost of inventories is expressed, and the definition of market price of inventories was conceived and expressed with the purpose to assure more uniformity in the pricing

ing of inventories for the determination of net income for the year. Consistency in the use of an adopted method of costing and pricing is emphasized.

The major point in the bulletin, however, relates to the matter of income determination, and quoting George D. Bailey in his article on the "Increasing Significance of the Income Statement" in the January, 1948, issue of the *Journal of Accountancy*, "The bulletin does definitely sharpen the determination of income for each year against the backdrop of the economic conditions of that year. This is the part that provides that inventories shall not be written down below cost when they are expected to be sold at a price which will recover cost and a reasonable profit per unit. The bulletin is interesting because it does accept the propriety of writing down inventories below the cost in order to provide for recovery of distribution expenses and a gross profit per unit." Some of us disagree with that principle in that we think that inventories should not be written down below the cost further than to provide for recovery of distribution expenses. Nevertheless, further quoting Mr. Bailey, "Inventory practice is by no means completely defined in the bulletin, but it is a start toward reducing variety of practice in that field."

Bulletin No. 31, Inventory Reserves, and Bulletin No. 33, Depreciation and High Costs, were adopted and approved by the Committee with a full sense and recognition of the unstable economic conditions and monetary value of the dollar. These bulletins do not represent a final expression regarding the accounting problems with which these bulletins have to do. They do, however, constitute a substantial contribution in assuring uniform treatment of these types of items in financial statements, and departure therefrom would be at variance with accepted accounting practice. In Bulletin No. 31 the

Committee restates the principle "that reserves should not be created for the purpose of equalizing reported incomes."

The underlying principle on which the Committee based these pronouncements is that which has to do with the matching of revenues and related costs for a designated fiscal period. This supposes that we take into account all revenues realized or accruable during the period, and that the revenues for the period are to be charged with all costs and losses that have been incurred or are foreseeable and are applicable against current revenues. These bulletins disapprove practices whereby reserves that attempt to measure the changing value of the monetary unit are created as a charge, in addition to the foreseeable costs and losses, against revenues in the determination of net income.

The bulletins themselves clearly state the position of the Committee, but it is fair to state that the Committee fully recognizes the motives which prompt management to create the type of inventory reserves defined in the bulletin and reserves for replacement costs of existing facilities, and reserves for excessive construction costs. In a consideration of the financial problems of the business enterprise, the Committee is mindful that the inflationary and unstable character of the monetary unit compels management to retain a portion of the earnings, and perhaps in some instances all of the earnings, in order to meet adequately the problems that may arise from a high level of prices that may be relatively temporary. The Committee's recommendation in instances where these types of reserves are considered necessary is to create them either as an appropriation of earned surplus or as an appropriation of net income for the year. To charge these reserves against current revenues in the determination of net income would be a violation of basic and accepted accounting principles. The Committee is fully in ac-

cord with the need of management and of the accounting profession to have the "non-insider" fully informed and advised of the propriety in maintaining a strong financial position, and is very sympathetic with the idea that management should make a full and clear statement of the

bases supporting the retention of earnings, whether or not management chooses to appropriate earned surplus or net income through the medium of reserves, earmarked as cushions to lessen the financial impact that may arise from unstable economic conditions of the present.

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MAJOR DIFFERENCES BETWEEN NET INCOME FOR ACCOUNTING PURPOSES AND FOR FEDERAL INCOME TAXES

CLARENCE F. REIMER

PRESENT FEDERAL INCOME taxes are based on the Sixteenth Amendment to the Constitution giving Congress the power "to lay and collect taxes on incomes from whatever source derived, without apportionment among the several States and without regard to any census or enumeration." Simple as the amendment appears to be, the question of "what is income" has become the subject of limitless disagreement among Congressmen, taxpayers, accountants, lawyers, and representatives of the Bureau of Internal Revenue.

The very term "income tax" implies that the tax is to be on income and that receipts which are not income are not to be taxed. There is also ample evidence to indicate that it has been the intention of Congress to levy the tax, with minor statutory exceptions, on only true net income as determined by the application of sound accounting procedure.

The Internal Revenue Code specifies that net income shall be computed upon the basis of the taxpayer's annual accounting period in accordance with the method of accounting regularly employed in keeping the books of such taxpayer. The Regulations of the Commissioner of Internal Revenue also indicate in various sections that approved standard methods of accounting will ordinarily be regarded as clearly reflecting income.

The Supreme Court has defined income to include (1) the gain derived from capital from labor, or from both combined, and (2) the profit gained through a sale or conver-

sion of capital assets. The Court also indicated at an early date that the purpose of the sections of the 1916 Act relating to accounting was to enable taxpayers to keep their books and make their returns according to scientific accounting principles, by charging against income earned during the taxable period the expenses incurred in and properly attributable to the process of earning income during that period. Frequent reference has been made to this decision in subsequent tax cases.

Nevertheless, a gap has always existed between net income as computed for federal tax purposes and as determined according to generally accepted accounting principles for business purposes. That breach appears to be gradually widening and has already reached such proportions that business is experiencing considerable difficulty in keeping records that are adequate for both needs.

The differences between net income for the two purposes include thirty-one major items and multifarious minor items depending on the whims of the revenue agent. The income-tax laws, the Commissioner's Regulations, and the applicable court decisions all contain numerous limitations and exceptions to the general rules. Similarly, accounting treatment of many items varies with the special circumstances existing in any particular instance. Obviously, there is wide latitude in the differences that are encountered in various situations.

The major differences selected are divided into six categories according to the

manner in which income or expense is affected. In general terms they are summarized as follows:

1. Income not taxed
 - A. Interest on state and municipal obligations
 - B. Interest on certain obligations of the United States and its possessions
 - C. Life insurance proceeds received by reason of the death of the insured
 - D. Profit through involuntary conversion providing the entire proceeds for the property destroyed by casualty, or taken by condemnation proceedings, are immediately reinvested in other property which is similar or related in service to the original property
 - E. Improvements by lessee which revert to the benefit of the lessor
 - F. Fifty per cent of the net gain from long-term transactions in capital assets by an individual taxpayer
 - G. Gain on non-taxable exchanges—including primarily, but by no means exclusively, gain from property held for productive use in a trade or business exchanged solely for property of a like kind to be held for the same purpose
 - H. Income resulting from the recovery of bad debts, prior taxes, and delinquency amounts which did not affect a reduction of any tax of the taxpayer for any prior year
2. Non-income taxed
 - A. Gain on sale of treasury stock (dealings in treasury stock are capital raising activities and accountants deem any so-called gain to be paid-in surplus instead of income)
 - B. Double taxation of certain collections when changing from the usual accrual method to the installment basis of accounting
 - C. Change in legal status but not economic status
 - D. Receipt of money, the claim to which is in question
3. Differences in year of incidence of income
 - A. Prepaid income is not recognized by the Commissioner and the courts even for taxpayers on the accrual basis except for subscription income received by publishing concerns.
 - B. The law taxes income from annuities by arbitrarily requiring in all cases that 3 per cent of the consideration paid for
- the annuity (but not in excess of the amount received) be included in gross income each year regardless of the circumstances obtaining in any particular case
4. Business expenses not deductible for tax purposes
 - A. Fines and expenses for violation of law
 - B. Charitable contributions in excess of given percentages of income ("gifts" are not deductible in any amount)
 - C. Expenses allocable to exempt income, including
 - (1) Life insurance premiums if the taxpayer is directly or indirectly a beneficiary of the policy
 - (2) Interest on indebtedness for purchasing single premium contracts
 - (3) Other expenses of earning exempt income
 - D. Unpaid expenses and interest when not paid within two and one-half months after the close of the taxpayer's year and when certain other conditions are present
 - E. Fifty per cent of net long-term loss from capital transactions by an individual taxpayer, and unabsorbed capital loss carryovers
 - F. Federal income tax of corporate taxpayers
5. Non-expense items deductible in arriving at taxable income
 - A. Depletion allowed in excess of cost
 - B. Net operating loss deduction
 - C. Excess of market value of contribution at time of giving over cost or other basis
 - D. Loss on sale of treasury stock (considered a distribution of earned surplus by accountants)
6. Differences in year of incidence of expense
 - A. The Treasury Department is prone to capitalize many items the accountant often treats as revenue charges, including particularly repairs. Also, amortization of organization expense is considered essential by many accountants and businessmen but is not permitted by the Treasury Department
 - B. Depreciation and amortization of tangible assets are often at different rates and on different bases.
 - C. Amortization of purchased goodwill is not deductible for tax purposes but is sometimes necessary for accounting purposes

- D. The Treasury Department does not recognize a gradual accrual of property and certain other taxes but treats them as accruing in total on one particular date
- E. Reserves for future expenses applicable to past revenues are not allowed for tax purposes but are deemed essential for accounting purposes
- F. Disagreement is common as to when bad debts are deductible and as to what constitutes a reasonable addition to a reserve for bad debts
- G. Losses on wash sales are disallowed for tax purposes. This results in deferment of loss until the newly purchased securities are sold or otherwise disposed of

A majority of the above differences are statutory, i.e., they are specifically provided in the tax laws; and, the balance of them are administrative in nature, i.e., they are imposed by the Bureau of Internal Revenue in its administration of the tax laws and are then upheld by the courts.

Sharp lines of demarcation cannot be drawn to segregate the six types of differences as to nature but the following conditions are apparent:

1. Income not taxed consists entirely of items specifically exempt by the statutes.
2. Shifting the year of incidence of both income and expense (or loss) results primarily, but not exclusively, from the Bureau's administration of the statutes.
3. The remaining types, i.e., taxing non-income items, allowing deduction for tax purposes of non-expense items, and disallowing deduction for tax purposes of certain business expenses or losses, are about equally divided as to statutory or administrative character.
4. A majority of the thirty-one differences are specifically provided in the law.
5. Differences occurring most frequently and giving the taxpayer most difficulty are administrative in nature. They result from the Bureau's shifting of incidence of income and expense (or loss).
6. The Bureau's eagerness to make additional tax assessments has brought about chaos in several fields of deduction, and particularly in the field of depreciation.

Obviously, it is undesirable and impractical to have wide divergences in methods

of measuring net income for the various purposes. The objective should be more nearly uniform concepts of net income that would serve all needs—for reporting to stockholders, to creditors, to the Treasury Department, and to other governmental agencies.

The goal of business accounting is to arrive at as nearly correct an approximation of the results of operations for each business unit as is possible. The methods followed in arriving at this objective are closely related to economic and legal facts and conditions. Thus it follows that generally accepted accounting principles should furnish the primary guide for determining net income for all purposes, including the computation of taxable income.

Taxable net income, however, need not coincide with business net income. Some restrictions on allowing deductions may be necessary for practical tax administration. Allowance of the operating loss carry-over is essential to avoid excessive taxation for the business with spasmodic profits or losses. But the differences between the two concepts of income should be narrowed so as to include only a few items. These should be specifically provided in the statutes and not left to the Bureau's discretion.

The steps necessary to bring the two concepts of income into closer agreement are: (1) elimination of as many of the statutory differences as is feasible in view of an effective taxing policy, and (2) elimination of all administrative differences by forcibly requiring the Bureau of Internal Revenue to adhere to accepted accrual accounting for taxpayers using that basis. This will necessitate the discontinuance by the Bureau of the many nuisance adjustments that it now makes. In correcting the situation it will be advisable for Congress to adopt a long-range consistent tax policy expressed in a less complicated, more clearly stated law.

THE TEACHERS' CLINIC

S. PAUL GARNER

EDITOR'S NOTE: Many of the experienced teachers, as well as some of the new ones, have developed devices and techniques for the presentation of certain of the knotty aspects of accounting, and it is felt that such suggestions might well be made available to the other members of the teaching profession through *The Teachers' Clinic*. Accordingly, contributions are hereby invited. Please address all correspondence to S. Paul Garner, School of Commerce and Business Administration, University, Alabama.

THE OBJECTIVE VERSUS PROBLEM TYPE ACCOUNTING TEST

VICTOR JEPSEN

Fresno State College

Not long ago our college chose for a first year accounting textbook one of those modern versions whose publishers make life easier for the busy teacher by providing standardized objective type tests at no extra cost. Faced with one of the busiest years in history and with graders or readers obtainable only at premium, it is needless to add that all instructors used the tests.

Nevertheless, some of the older teachers used them with a sense of misgiving. In probably no field is the belief more ingrained, both in student and faculty, that the objective test and the problem test differ in their measurement of a student's accounting ability. The latter test, it is believed, really measures true accounting ability while the former may merely measure general intelligence, familiarity with English, etc. Many teachers, therefore, rely exclusively on problem tests for measuring purposes, although they are willing occasionally to use the objective test for study motivation purposes.

As a more or less faithful adherent to this school of thought, the writer sought to determine statistically whether the two tests did in fact measure different knowledge or abilities. The study involved using two classes, consisting of about ninety students in accounting, and testing them

during the course of a semester with two measuring devices: one, the objective tests furnished by the textbook publisher, and the other, problem tests which the writer had devised and used over a period of years. The time involved, the situation, and the motivation, in the case of both tests, were as nearly identical as it was possible to make them, with the class understanding that each was similarly important in determining the final grade and with approximately four hours given to the total application of each type test. (There were, however, fourteen objective tests, while only four problem type tests were given during that time.)

At the end of the semester the rank in class of each student as measured by each testing device was calculated, and Spearman's formula for determining rank correlations was applied to the two sets of ranks. Ninety students constitute a fairly reliable group for the application of this formula and it was rather surprising to discover a coefficient of correlation of .93 between the two ranks. For those unfamiliar with this statistical device, it may be said that .93 denotes a very high degree of similarity between the grades which were recorded independently by the two methods. In fact, the highest ten students in class as measured by the objective tests included

ten out of the first eleven as measured by the problem tests, there being only one difference in the rank status of the two groups. The same close parallel held at the bottom of the scale where eight of the lowest ten ranked by the objective tests were also in the lowest ten ranked by the problem tests. In addition, similar correlation existed in the middle ranges.

In summary, this brief and, of course, inconclusive statistical study proved that for this group of students the measurement of level of attainment was accomplished equally well by both types of tests with practically no difference in the final grade. It would appear, therefore, that both tests measured the same thing or, if not, then the qualities they did measure were essentially equal to each other. Such statistical reassurance may be of great moral value when one is tempted against his scruples to use a prepared, standardized test simply because of the pressure of time.

It must be added, as a note of warning, that all objective type tests may not measure as well as this standardized and printed test. Teachers sometimes are un-

acquainted with test construction and when making their own, often fail to devise a satisfactory measuring instrument. More than a course in tests and measurements and the preparation of a few questions is necessary for the development of a satisfactory test. The reliability and validity of each question needs to be determined by statistical methods rather than psychical ones, and there are many pitfalls for those who attempt haphazardly to construct a reliable objective type test. Publishers spend a great deal of time and money in the development of their tests, and even in these many questions prove to be so ambiguously worded as to impair their value as a measuring device. However, whereas this is true of only a comparatively few questions in the printed forms, it may be true of the majority in a privately developed test, which accordingly may or may not be a reliable measuring instrument.

This brief study, then, endorses a carefully prepared standardized objective test as capable of measuring accounting ability to an extent equal to problem tests.

TEACHING STANDARD COSTS AND FLEXIBLE BUDGET WITH THREE- AND TWO-VARIANCE METHODS

ADOLPH MATZ

Wharton School of Finance and Commerce

In the teaching of standard costs and flexible budget the instructor not only faces the task of introducing a new subject, but also of finding a means which enables the students to grasp quickly the rudimentary steps so that the meaning and value of this accounting technique can be fully appreciated. Having mastered these initial methods of computing variances and pre-

paring the journal entries, the student can be led to the discussion of volume, normal capacity, etc. without causing too much confusion in his mind. This paper attempts to present the methods which have been found quite helpful in teaching this subject. Without spending too much time on a general discussion of standard costs, the student is given the following formulae:

Material:

Pieces	Price	
(1) Actual	Actual	= Total
Price Variance		
(2) Actual	Standard	= Total
Quantity Variance		
(3) Standard	Standard	= Total

Labor

Hours	Rate	
(1) Actual	Actual	= Total
Price (Rate, Wage) Variance		
(2) Actual	Standard	= Total
Quantity (Labor Efficiency) Variance		
(3) Standard	Standard	= Total

Overhead:

Hours	Rate	
(1) Actual	Actual	= Total
(Actual Overhead)		
Budget (or Expense) Variance		
(2) Budgeted (or Allowed) Overhead		= Total
Capacity Variance		
(3) Actual	Standard	= Total
Efficiency Variance		
(4) Standard	Standard	= Total

The following essential requirements should be pointed out to the student:

- (1) For all three elements the formulae start with the actual expense incurred.
- (2) The second computation in material and labor uses actual and standard.
- (3) The overhead formula is like the other two except for the second computation when the budgeted or allowed factory expenses are introduced. But in (3) and (4) the formula returns to the same scheme as used for material and labor.
- (4) To compute the variance always subtract (2) from (1), or (3) from (2), or (4) from (3). If this subtraction is possible, i.e. if (2) is smaller than (1), the variance is always an unfavorable one, or over standard. In journal form the variance results in a debit. If (2) is greater than (1), or (3) greater than (2), the resulting variance is favorable, or under standard, and is a credit in the journal entry.
- (5) If it is considered desirable to compute differences for pieces or hours, price or rates, the same subtraction as recommended in (4) above should be made.
- (6) For all three elements (1) is a credit to Vouchers Payable except for some overhead which might be credited to prepayments or to reserve accounts.
- (7) Item (2) is a debit to Stores for material and a debit to Payroll in case of labor.
- (8) For all three elements the last line, i.e. No. 3 for material and labor and No. 4 for over-

head, is a debit to the Work-in-Process account assuming that the Work-in-Process account is always charged with the standard cost.

- (9) No. 3 in overhead is a credit to Applied Overhead while No. 4 is a debit to the Work-in-Process account. The difference is the efficiency variance which the student formerly learned as the amount of over- or under-absorbed burden. By mentioning this fact it is possible to review with the student this phase of overhead accounting. If this discussion is illustrated by a form, it is suggested that actual costs be placed in the first column and the standard costs in the second in order to carry out the same manner of computation. This method is also helpful in actual practice. Otherwise, the cost clerk who computes the variance will always be uncertain as to the type of result, whether unfavorable or favorable, whether a debit or a credit.

Example:

Elements	Actual (1)	Standard (2)	Variance	
			Unfavorable (1-2)	Favorable (2-1)

- (10) The scheme of the formulae can be used whether dealing with one item of material or numerous ones, whether labor cost comprises the entire payroll or only one employee, whether one single overhead item or all of them, whether a single department or the entire plant.

These formulae acquaint the student with the computation of the variances and enable him to prepare the required journal entries. To illustrate, assume the following data:

Normal capacity hours (or normal burden budget).....	10,000 hrs.
Overhead allowed for 10,000 hrs. (or normal burden cost).....	\$38,000
Expected actual hours (or budget for period).....	9,000 hrs.
Overhead allowed for 9,000 hrs. (or budgeted overhead costs).....	\$36,000
Actual hours.....	7,000 hrs.
Actual overhead.....	\$32,200
Allowed hours (or standard allowance) for actual production.....	7,100 hrs.
Allowed overhead for 7,000 hrs.....	\$31,000

Solutions

A. Normal Capacity Procedure

Journal Entry:		
Work-in-Process.....	\$26,980	
Standard×Standard (7,100 hrs.×\$3.80)		
Budget (or Expense) Variance.....		1,200
Actual Overhead.....	\$32,200	
Less Budgeted (or Allowed) Overhead.....	31,000	
	\$ 1,200	
Capacity Variance.....		4,400
Budgeted Overhead.....	\$31,000	
Less Actual×Standard (7,000 hrs.×\$3.80).....	26,600	
	\$ 4,400	
Efficiency Variance.....		380
Actual×Standard.....	\$26,600	
Less Standard×Standard.....	26,980	
	\$ 380	
Overhead Control (Actual).....		\$32,200
<u>\$38,000</u>		
Hrs. 10,000 — \$3.80 rate for normal capacity		

Explanation: The normal capacity procedure makes use of the normal capacity rate, but the hours charged into production are on the level allowed for the work completed. Variances are otherwise computed as stated in the formulae.

- (2) The capacity variance is useless for control purposes, for the \$8,000 would only come about if no variable costs exist. But as some costs are saved by not operating at 90% capacity, the cost of plant idleness should be smaller.

B. Expected-Actual Procedure (with a Fixed Budget)

Journal Entry:		
Work-in-Process.....	\$28,400	
Standard×Standard (7,100 hrs.×\$4.00)		
Capacity Variance.....		8,000
Budgeted Overhead.....	\$36,000	
Less Actual×Standard (7,000 hrs.×\$4.00).....	28,000	
	\$ 8,000	
Budget Variance.....		3,800
Actual Overhead.....	\$32,200	
Less Budgeted Overhead.....	36,000	
	\$ 3,800	
Efficiency Variance.....		400
Actual×Standard.....	\$28,000	
Less Standard×Standard.....	28,400	
	\$ 400	
Overhead Control (Actual).....		\$32,200
<u>\$36,000</u>		
Hrs. 9,000 — \$4 rate for expected actual performance		

Explanations:

- (1) The favorable budget variance is misleading. The foreman operated at 70% capacity; yet his actual outlay is compared with a 90% capacity level. With such a method the lower level of actual activity would result in a better performance compared with the budget.

The method and answers presented dealt with a fixed or static budget with standards set at either normal capacity or at expected actual production. Under such a method the capacity and budget variances are only useful if actual production is al-

most equal to expected actual. If this is not the case, the variances become meaningless and useless for control purposes.

The flexible budget procedure attempts to correct these errors by comparing the actual costs with the allowed costs for the level of activity the foremen actually attained. See entry C below.

Two Overhead Variances

Many cost-accounting systems are designed to show only two overhead variances, a controllable expense (or efficiency) variance and a volume (or capacity) variance. The flexible budget is generally used in this connection, and normal or capacity standard rates are typical. Using the above data the entry D is made:

Explanations: (Entry C)

- (1) The foreman's actual costs (\$32,000) are com-

pared with the allowed costs for the level of activity he actually attained (\$31,000). The budget variance can now be used for control purposes.

- (2) The capacity variance is also changed to reflect the saving in costs due to reduced activity.

Explanations: (Entry D)

- (1) The allowed overhead for the actual output is the key figure (\$31,000).
 (2) The controllable expense variance is, of course, the budget or expense variance in the three-variance method. It is again computed in the same manner. This variance should be controlled by the foreman in the shop. It is therefore also called "Efficiency Variance," a title that should not be confused with the Efficiency Variance of the three-variance method.
 (3) The volume variance is the composite of the capacity variance and the efficiency variance of the three-variance method. It is computed by omitting the actual \times standard rate figure (No. 3) and immediately going to No. 4. This

C. Flexible Budget Procedure

Journal Entry

Work-in-Process.....		\$28,400	
Standard \times Standard (7,100 hrs. \times \$4)			
Budget (or Expense) Variance.....			1,200
Actual Overhead.....	\$32,200		
Less Budgeted Overhead.....	31,000		
	\$ 1,200		
Capacity Variance.....			3,000
Budgeted Overhead.....	\$31,000		
Less Actual \times Standard (7,000 hrs. \times \$4).....	28,000		
	\$ 3,000		
Efficiency Variance.....			400
Actual \times Standard.....	\$28,000		
Less Standard \times Standard.....	28,400		
	\$ 400		
Overhead Control (Actual).....			\$32,200

D. Journal Entry

Work-in-Process.....		\$26,980	
Allowed Hrs. \times Normal Capacity Rate (7,100 hrs. \times \$3.80)			
Controllable Expense Variance.....			1,200
Actual Overhead.....	\$32,200		
Less Budgeted Overhead.....	31,000		
	\$ 1,200		
Volume Variance.....			4,020
Budgeted Overhead.....	\$31,000		
Less Allowed Hrs. \times Normal Capacity Rate.....	26,980		
	\$ 4,020		
Overhead Control (Actual).....			\$32,200

variance is the responsibility of management.

- (4) The top line is again the actual costs, the bottom line the charge to work-in-process: the variances are either debits or credits depending upon the results obtained.

The method and the result obtained in this journal entry are often considered erroneous. The efficiency variance of Entry A (\$380) is offset against the capacity variance of \$4,400, making it a net figure of \$4,020. While the controllable expense variance is under the control of the foreman, the capacity variance seldom is. As the volume variance in Entry D contains fixed costs, it seems more advisable to transfer some of the fixed costs still retained in the controllable variance to the volume variance. The volume variance will then contain fixed costs only; these become the responsibility of management. The following journal entry will achieve this:

E. Journal Entry

Work-in-Process.....	\$26,980	
Allowed Hrs. X Normal Capacity Rate (7,100 hrs. X \$3.80)		
Controllable Expense Variance.....		950
Actual Overhead.....	\$32,200	
Less Budgeted (or Allowed) Overhead.....	31,250	
	\$ 950	
Volume Variance.....		4,270
Budgeted (or Allowed) Overhead.....	\$31,250	
Less Allowed hrs. X Normal Capacity Rate.....	26,980	
	\$ 4,270	
Overhead Control (Actual).....		\$32,200

Explanations:

- (1) By dividing:

$$\frac{\text{Allowed hours to do the work done}}{\text{Capacity hours}} = \frac{7,100}{10,000} = 71\%$$

the percentage of capacity is found. Heretofore, the percentage of capacity was computed by dividing:

$$\frac{\text{Actual hours}}{\text{Capacity hours}} = \frac{7,000 \text{ hrs.}}{10,000 \text{ hrs.}} = 70\%$$

The 71% calls for interpolation between 70% and 90%. The only interval given in the problem is:

$$\begin{aligned} 70\% \text{ or } 7,000 \text{ hrs.} &= \$31,000 \\ 90\% \text{ or } 9,000 \text{ hrs.} &= 36,000 \\ \text{Difference for } 20\% &= 5,000 \\ \text{Difference for } 1\% &= 250 \end{aligned}$$

Therefore, \$250 is added to the \$31,000 to make a total allowed or budgeted figure of \$31,250. This figure subtracted from the \$32,200 results in the controllable expense variance of \$950 which is chiefly composed of variable overhead.

- (2) The transfer of \$250 from the controllable expense variance to the volume variance is a better measure of the amount saved by efficient operations. The volume variance contains only fixed costs for which the foreman cannot be held responsible.

Conclusion:

The formulae and steps explained here

are intended to be introductory and explanatory in nature. But when these easily and quickly mastered rules of standard costs are coupled with the knowledge, experience, interest, and personality of the instructor, it will require only a short step to lead the student to the more technical and complex problems of budgetary control and cost analysis.

PROFESSIONAL EXAMINATIONS

A Department for Students of Accounting

HENRY T. CHAMBERLAIN

THE FOLLOWING problems were prepared by the Board of Examiners of the American Institute of Accountants and were presented as the first half of the C.P.A. examination in accounting practice in May, 1948. The candidates were allowed four and a half hours to solve both problems. Each problem was given a weight of 25 points.

A suggested time schedule is given below:

- Problem 1—90 minutes
- Problem 2—90 minutes

No. 1

Using the information below prepare:

a. Journal entries:

- (1) to open the books of the Watt Manufacturing Company;
- (2) to effect the transfer of the assets acquired and liabilities assumed by the Watt Manufacturing Company from the Hear Telephone Company making appropriate entries on the books of each company;
- (3) to effect the elimination of the manufacturing division of the Hear Telephone Company;
- (4) to close the books of both companies at December 31, 1947.

b. Balance-sheet of each company at December 31, 1947, including any pertinent explanatory notes.

The Hear Telephone Company operated two departments — "Communications" and "Manufacturing." The "Manufacturing" division kept a complete set of accounts, which were controlled by the gen-

eral ledger of the "Communications" division.

As of November 30, 1947, the Hear Telephone Company sold to the Watt Manufacturing Company the current and plant assets, except cash, of the Manufacturing division, the purchaser assuming all of the department's liabilities to outsiders. On the date of sale the Watt Manufacturing Company issued to the Hear Telephone Company, in full payment of the purchase price, 5,000 shares of no-par common stock.

The Watt Manufacturing Company was organized on November 30, 1947, with a capital of 6,000 shares of no-par common stock and 1,000 shares of 4 per cent cumulative preferred stock of \$100 each, having a liquidating and call value of \$110 a share. On that date it received cash for the remaining 1,000 shares of common and the 1,000 shares of preferred, in the amounts of \$60,000 and \$100,000, respectively.

The physical transfer of the assets was not made until a month later (December 31, 1947), and the Hear Telephone Company operated the Manufacturing division during December for account of the Watt Manufacturing Company.

The books of both the Hear Telephone Company and the Watt Manufacturing Company are to be kept on a calendar year basis.

Condensed divisional balance-sheets of the Hear Telephone Company at November 30, 1947 and December 31, 1947, before recording the transfer, were as follows:

Assets	November 30, 1947		December 31, 1947	
	Communi- cations	Manufac- turing	Communi- cations	Manufac- turing
Cash.....	\$ 50,000	\$ 10,000	\$ 60,000	\$ 20,000
Accounts receivable.....	100,000	50,000	110,000	40,000
Inventories.....	50,000	100,000	50,000	80,000
Investments in subsidiary companies.....	20,000	—	20,000	—
Plant and property.....	500,000	350,000	500,000	350,000
Reserves for depreciation.....	(250,000)	(150,000)	(252,000)	(152,000)
	<u>\$470,000</u>	<u>\$360,000</u>	<u>\$488,000</u>	<u>\$338,000</u>
<i>Liabilities</i>				
Accounts payable.....	\$ 60,000	\$ 40,000	\$ 78,000	\$ 22,000
Sundry accruals.....	120,000	10,000	110,000	10,000
Reserves for federal income taxes.....	40,000	—	40,000	—
Inter-departmental control.....	(300,000)	300,000	(308,000)	308,000
Capital stock.....	300,000	—	300,000	—
Earned surplus.....				
Balance 12/31/46.....	200,000	—	200,000	—
Profit or (loss).....	50,000	10,000	68,000	(2,000)
	<u>\$470,000</u>	<u>\$360,000</u>	<u>\$488,000</u>	<u>\$338,000</u>

No. 2

From the data below prepare for the use of a creditors' committee the following statements, showing what probable payments can be made to each of the creditors of Jones, Inc.

A. A statement in which (1) the assets are grouped to show to what extent they are pledged or free, their estimated realizable value and shrinkage, and

(2) the liabilities are classified as preferred, fully secured, partly secured and unsecured.

B. Statement of estimated deficiency to unsecured creditors, showing particulars.

C. Statement of estimated amounts available for each class of creditors, showing ratio to original claims.

Jones, Inc.

Balance-Sheet, as of March 31, 1948
(Prepared by the company's bookkeeper)

Assets

Current:			
Cash.....		\$ 2,000	
Notes receivable.....	\$ 4,640		
Less notes receivable discounted.....	4,640		
Accounts receivable.....		4,000	
U. S. Treasury bonds.....		10,000	
Inventories.....			
Finished goods.....	\$15,000		
Work in process.....	4,500		
Raw materials.....	6,000	25,500	
Total current assets.....			\$ 41,500
Subscriptions to capital stock.....			12,500
Investments.....			2,300
Property and equipment:			
Real estate.....		\$45,000	
Factory equipment.....		24,000	
		\$69,000	
Less reserve for depreciation.....		20,000	49,000
Total assets.....			<u>\$105,300</u>

Liabilities

Current:

Notes payable:		
To Manufacturers' Trust Co.....	\$10,000	
To Alex Smith.....	25,000	\$35,000
Accounts payable.....		24,000
Accrued liabilities:		
Salaries and wages.....	\$ 992	
Property taxes.....	460	1,452
Total current liabilities.....		\$ 60,452
Long-term liabilities:		
First mortgage on real estate.....	\$15,000	
Second mortgage on real estate.....	20,000	35,000
Total liabilities.....		\$ 95,452

Capital

Capital stock—authorized, subscribed and issued, 500 shares, par \$100 per share	\$50,000	
Less deficit.....	(40,152)	9,848
		<u>\$105,300</u>

An analysis of the Company's accounts disclosed the following:

- a. Jones, Inc. started business April 1, 1943, with authorized capital of \$50,000 represented by shares of \$100 par value each. Of the 500 authorized shares 375 were fully paid at par and 125 were subscribed at par, payment to be made on call.
- b. The Manufacturers' Trust Company holds \$10,000 of U. S. Treasury bonds as security for its \$10,000 loan; it also holds the first mortgage of \$15,000 on the company's real estate, interest on which is paid through March 31, 1948.
- c. The real estate includes land, which cost \$5,000, and a building erected thereon at a cost of \$40,000. Of the reserve for depreciation \$5,000 is applicable to the building and \$15,000 to the factory equipment. The realizable value of the real estate is estimated to be \$30,000.
- d. The note payable to Alex Smith is secured by a chattel mortgage on factory equipment and inventory. Interest on the note has been paid through March 31, 1948.
- e. Alex Smith holds the second mortgage on the real estate.
- f. The notes receivable, \$4,640, which were discounted, though not yet due, are deemed uncollectible.
- g. Of the accounts receivable of \$4,000, \$2,000 are considered good; of the remaining \$2,000 it is expected that one-half will be uncollectible.
- h. Inventories are valued at cost; finished goods are expected to yield 110 per cent of cost. Goods in process cost \$4,500 and have a realizable value, if scrapped, of \$900. It is estimated, however, that the work in process can be completed into finished goods by the use of \$1,200 of raw material and an expenditure of \$1,400 for labor and other costs. The raw material deteriorates rapidly, and is estimated to realize 25 per cent of cost.
- i. The factory equipment which cost \$24,000 on April 1, 1943, is considered to have a realizable value of \$5,000 at March 31, 1948.
- j. The subscription to the capital stock for 125 shares at par is due from Wyman Jones, president of the company, and is fully collectible.
- k. Investments include 15 shares (a one per cent interest) of the common stock of the Bourbon Company, acquired at a cost of \$1,500, but with a market value

of \$3,390 at March 31, 1948; and 20 shares of Treasury stock for which the company paid \$800.

1. No expenses of liquidation nor accruals not specifically mentioned need be considered.

The committee has called for payment

of the capital stock subscription and has decided to have the goods in process converted into finished goods expected to realize 110 per cent of cost. Completion of goods in process can be done so quickly that no further expenses than those mentioned above will be entailed.

Solution to Problem 1

Entries on the books of the Hear Telephone Company, Communications Division:

November 30, 1947

Investment in Watt Manufacturing Company.....	\$300,000.00	
Due to Watt Manufacturing Company.....		\$300,000.00
To record purchase of 5,000 shares of stock of Watt Manufacturing Company.		

December 31, 1947

Due to Watt Manufacturing Company.....	12,000.00	
Interdepartmental control.....		12,000.00
To charge Watt Manufacturing Company for loss in December 1947.		

December 31, 1947

Cash.....	20,000.00	
Accounts receivable.....	40,000.00	
Inventories.....	80,000.00	
Plant and property.....	350,000.00	
Accounts payable.....		22,000.00
Sundry accruals.....		10,000.00
Reserve for depreciation.....		152,000.00
Interdepartmental control.....		306,000.00
To record on the books of the Communications Division the assets and liabilities of the Manufacturing Division.		

December 31, 1947

Due to Watt Manufacturing Company.....	288,000.00	
Accounts payable.....	22,000.00	
Sundry accruals.....	10,000.00	
Reserve for depreciation.....	152,000.00	
Cash.....		2,000.00
Accounts receivable.....		40,000.00
Inventories.....		80,000.00
Plant and property.....		350,000.00
To record the transfer of assets to Watt Manufacturing Company and the liquidation of the debt to that Company.		

December 31, 1947

Interdepartmental control.....	10,000.00	
Profit and loss.....		10,000.00
To close interdepartmental control and to pick up profit to November 30, 1947.		

December 31, 1947

Profit and loss.....	\$ 78,000.00	
Earned surplus.....		\$ 78,000.00
To close profit and loss account.		

Entries on the books of Hear Telephone Company—Manufacturing Division:

December 31, 1947

Interdepartmental control.....	2,000.00	
Profit and Loss.....		2,000.00
To close loss for year to control account.		

December 31, 1947

Accounts payable.....	22,000.00	
Sundry accounts.....	10,000.00	
Reserve for depreciation.....	152,000.00	
Interdepartmental control.....	306,000.00	
Cash.....		20,000.00
Accounts receivable.....		40,000.00
Inventories.....		80,000.00
Plant and property.....		350,000.00
To close asset and liability accounts and the interdepartmental control account.		

Entries on the books of the Watt Manufacturing Company:

November 30, 1947

The Company was organized this day with an authorized capital of 6,000 shares of no-par value common stock and 1,000 shares of 4% cumulative preferred stock having a par value of \$100.00 per share and a call or liquidating value of \$110.00 per share.

November 30, 1947

Unissued stock—4% preferred.....	\$100,000.00	
Capital stock—4% preferred.....		\$100,000.00
To record authorized issue of 1,000 shares of \$100.00 par value preferred stock.		

November 30, 1947

Cash.....	160,000.00	
Unissued stock—4% preferred.....		100,000.00
Capital stock—common.....		60,000.00
To record sale of 1,000 shares of common stock at \$60.00 per share and 1,000 shares of preferred at \$100.00 per share.		

November 30, 1947

Due from Hear Telephone Company.....	300,000.00	
Capital stock—common.....		300,000.00
To record purchase of net assets of Hear Telephone Company Manufacturing Division and the issuance of 5,000 shares of common stock.		

December 31, 1947

Cash.....	2,000.00	
Accounts receivable.....	40,000.00	
Inventories.....	80,000.00	
Plant and property.....	350,000.00	
Profit and loss.....	12,000.00	
Reserve for depreciation.....		152,000.00
Accounts payable.....		22,000.00
Sundry accruals.....		10,000.00
Due from Hear Telephone Company.....		300,000.00
To record the transfer of assets from Hear Telephone Company and to record the loss from operations for the month of December 1947.		

December 31, 1947

Deficit.....	\$ 12,000.00	
Profit and loss.....		\$ 12,000.00
To close profit and loss account.		

Solution to Problem 1

HEAR TELEPHONE COMPANY

Balance Sheet—December 31, 1947

Assets			
Current Assets:			
Cash.....	\$ 78,000.00		
Accounts receivable.....	110,000.00		
Inventories.....	50,000.00		
Total current assets.....			\$238,000.00
Investments in Subsidiary Companies:			
Watt Manufacturing Company common stock (83⅓% interest) cost (note).....	\$300,000.00		
Other.....	20,000.00	320,000.00	
Plant and Property.....	\$500,000.00		
Less reserve for depreciation.....	252,000.00	248,000.00	
			<u>\$806,000.00</u>
Liabilities			
Current Liabilities:			
Accounts payable.....	\$ 78,000.00		
Sundry accruals.....	110,000.00		
Reserve for federal income taxes.....	40,000.00		
Total current liabilities.....			\$228,000.00
Capital Stock and Surplus:			
Capital stock.....	\$300,000.00		
Surplus:			
Balance, December 31, 1946.....	\$200,000.00		
Net income, 1947.....	78,000.00	278,000.00	578,000.00
			<u>\$806,000.00</u>

Note: The investment in the Watt Manufacturing Company represents the cost of 5,000 shares which were acquired on November 30, 1947 at book value. At December 31, 1947 the loss of the Watt Manufacturing Company since the date of acquisition amounts to \$12,000.00 before accrued preferred dividends of \$333.33. The preferred stock of the Watt Manufacturing Company is entitled on call or liquidation to \$110.00 per share.

WATT MANUFACTURING COMPANY

Balance Sheet—December 31, 1947

Assets			
Current Assets:			
Cash.....	\$162,000.00		
Accounts receivable.....	40,000.00		
Inventories.....	80,000.00		
Total Current Assets.....			\$282,000.00
Plant and Property.....	\$350,000.00		
Less reserve for depreciation.....	152,000.00	198,000.00	
			<u>\$480,000.00</u>
Liabilities			
Current Liabilities:			
Accounts payable.....	\$ 22,000.00		
Sundry accruals.....	10,000.00		
Total Current Liabilities.....			\$ 32,000.00
Capital Stock and Deficit:			
4% cumulative preferred stock, par value \$100.00 per share; liquidation or call value \$110.00 per share; authorized and outstanding 1,000 shares.....	\$100,000.00		
Common stock, no-par value, 6,000 shares authorized and outstanding.....	360,000.00		
Deficit.....	12,000.00*	448,000.00	
			<u>\$480,000.00</u>

* Denotes red figure.

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Ledger Balance	Liabilities	Expected to rank
	CREDITORS HAVING PRIORITY (Deducted Contra)	
\$ 992.00	Accrued salaries and wages	
460	Accrued property taxes	
	FULLY SECURED CREDITORS (Deducted Contra)	
15,000.00	First mortgage on real estate	
10,000.00	Note payable to bank	
25,000.00	Note payable to Alex Smith	
	PARTIALLY SECURED CREDITORS (Contra)	
20,000.00	Second mortgage on real estate.....	\$20,000.00
	Less excess of estimated value of real estate over claim of first mortgage.....	15,000.00
		\$ 5,000.00
	UNSECURED CREDITORS	
24,000.00	Accounts payable.....	24,000.00
4,640.00	Note receivable discounted.....	4,640.00
	CAPITAL	
49,200.00	Capital stock, less cost of treasury stock	
40,152.00*	Deficit	
<u>\$109,140.00</u>		<u>\$33,640.00</u>
	* Red.	

(B)

Statement of Estimated Deficiency to Unsecured Creditors March 31, 1948

Capital stock, less cost of treasury stock \$800.00, less deficit of \$40,150.00.....		\$ 9,048.00
Estimated gains on realization:		
Finished goods inventory.....	\$ 1,500.00	
Work in process inventory.....	710.00	
Investments.....	1,890.00	4,100.00
		<u>\$13,148.00</u>
Estimated losses on realization:		
Real estate.....	\$10,000.00	
Factory equipment.....	4,000.00	
Raw materials inventory.....	3,600.00	
Notes receivable.....	4,640.00	
Accounts receivable.....	1,000.00	23,240.00
DEFICIENCY TO UNSECURED CREDITORS.....		<u>\$10,092.00</u>

Statement of Amount Available for Each Class of Creditors March 31, 1948

	Amount of claims	Amount available	% of assets available
Creditors having priority.....	\$ 1,452.00	\$ 1,452.00	100%
Fully secured creditors.....	50,000.00	50,000.00	100%
Partially secured creditors.....	20,000.00	18,500.00	92.5%
Unsecured creditors.....	28,640.00	20,048.00	70.0%
	<u>\$100,092.00</u>	<u>\$90,000.00</u>	

ASSOCIATION NOTES

E. BURL AUSTIN

CANADA

University of Saskatchewan:

C. W. WORDEN has been appointed lecturer in auditing.

Dean J. H. THOMPSON has been appointed a member of the Committee on Accounting and Auditing Research, Dominion Association of Chartered Accountants.

TERRITORY OF HAWAII

University of Hawaii:

LEE GLOVER recently addressed the Honolulu chapter, NACA, on the subject "A University Accounting Curriculum Designed to Meet Territorial Accounting Needs."

JACOB ADLER recently passed the CPA examination.

DISTRICT OF COLUMBIA

The American University:

Accounting subjects are taught by assistant professor EUGENE C. MOYER, and lecturers H. C. BICKFORD, DAVID BROOKS, J. S. BROWER, ALFRED D'ALESSANDRO, A. J. FISHER, R. H. HALQUIST, H. W. KETCHUM, R. W. KING, E. C. KOCH, and PAUL MATTHEWS.

CALIFORNIA

University of Southern California:

New staff members are: EDWARD G. STOTSENBERG, assistant professor, and JAMES M. HOLT and HYMAN H. ZIMMERMAN, lecturers.

VAL B. LEHNBERG has been promoted from lecturer to assistant professor.

University of California at Los Angeles:

New appointments include A. B. CARSON as assistant professor, and ROLAND W. FUNK, ROBERT H. LUSK, and LEON C. STERES as lecturers in accounting.

Professor A. B. CARSON read a paper on "Treatment of Taxes in the Income Statement" before the Pacific Coast Economic Association recently.

FLORIDA

University of Miami:

The following members make up a considerably expanded department of accounting: C. R. ADDINGTON, chairman; professors H. O. BOORD, WIRT PETERS, and E. V. SILVER; associate pro-

fessor ROLLIN E. MILLE.; assistant professors J. E. ROYER and HOWARD A. ZACUR; and, as instructors, ELOISE MOXLEY, ROBERT H. TUCKER, HOWARD F. PFAHL, HARRY R. PRICE, RONALD W. ROBINSON, MILTON KELNER, and C. V. KANE.

GEORGIA

University of Georgia:

New staff members include EINAR RASMUSSEN, LELAND C. WHETTEN, and HOMER A. BLACK.

Professor HAROLD M. HECKMAN addressed the Columbus chapter of NACA on the subject "Modified Financial Statements."

ILLINOIS

University of Illinois:

Two members have recently left the staff, R. L. BRUMMET to take a position with Washburn Municipal University, Topeka, Kansas, and E. J. FILBEY to retire.

Thirteen graduates are working for the Ph.D. degree in accounting.

De Paul University:

T. C. HILLIARD, formerly with Wolf and Company, CPA's, has been appointed chairman of the department of accounting.

ROGER BRIGGS has returned to the staff after teaching one semester at Texas A. and M. College.

INDIANA

Indiana University:

CHALMERS GOYERT has resigned to accept a position with the Eastman Kodak Company.

STANLEY PRESSLER has been appointed to the Advisory Hospital Planning Council for Indiana, and to the Advisory Committee to Federal Hospital Council. Professor Pressler has recently addressed the Milwaukee Regional Cost Conference, the Indianapolis Society for Advancement of Management, and the Cincinnati chapter of NACA

LOUISIANA

Loyola University:

W. P. CARR addressed the spring meeting of the Southwestern Social Science Association in Dallas on the subject of distribution costs.

Louisiana Polytechnic Institute:

LEO HERBERT addressed the spring meeting of the Southwestern Social Science Association in Dallas on the subject of the relationship between governmental and commercial accounting.

Louisiana State University:

GEORGE T. WALKER addressed the spring meeting of the Southwestern Social Science Association in Dallas on the subject of corporation annual reports.

MASSACHUSETTS

Massachusetts Institute of Technology:

Present staff includes RONALD H. ROBNETT, professor of accounting, and THOMAS M. HILL, JOHN A. BECKETT, and JOHN H. KEMPSTER.

Professors Robnett and Hill recently addressed the Boston chapter of NACA on the subject of overhead; they are associate directors of the Boston chapter.

MISSISSIPPI

Mississippi State College:

Accounting staff consists of the following: Professor W. W. LITTLEJOHN, chairman; assistant professors E. C. BROWN, VERNON EDWARDS, T. A. KELLY, EDWIN SANDERS, L. O. SMITH and FRANK WATSON; acting instructors FRANK JACKSON, E. F. McDOWELL, EDWARD SCHWEIZER, W. A. SIMMONS, CURTIS TARTT, J. T. WATKINS, and R. S. WOFFORD.

NEW JERSEY

Rutgers University:

New staff members are JOHN L. PHELON and KENNETH GLUCK, both assistant professors.

WILLIAM J. VON MINDEN, chairman of the department, is editor of the New Jersey CPA Journal and of the 50th Anniversary Yearbook of the New Jersey State Society of CPA's.

NEW MEXICO

University of New Mexico:

JOHN DUNBAR addressed the spring meeting of the Southwestern Social Science Association on the subject of income tax returns and the public accountant.

NEW YORK

Long Island University:

New staff members include SAMUEL SPEYER and RALPH METZGER, JR.

The Accounting Society of L. I. U., student

organization under the guidance of LEO SCHLOSS, department head, publishes its own magazine. The Society in 1947 was host to numerous outstanding professional accountants who spoke on accounting topics to the group.

J. N. DWORETSKY and A. J. KNERR have been promoted to the rank of assistant professor.

Columbia University:

CARMAN G. BLOUGH, Director of Research for the AIA, is conducting the accounting seminar. VICTOR Z. BRINK, of West Flint & Company, is conducting guest lecture courses in internal auditing and controllership practice.

New personnel include FREDERICK E. HORN, CHARLES W. BASTABLE, WALTER M. DALT, and GEORGE C. THOMPSON. H. A. INGRAM has been given general supervision of evening courses in accounting. He is director of accounting in the American Institute of Banking.

New York University:

ROBERT I. WILLIAMS has resigned to enter public practice. WILLIAM KOPTA has been appointed instructor in accounting.

MICHAEL SCHIFF, formerly of Hunter College, has been appointed assistant professor of accounting.

University of Buffalo:

JAMES S. SCHINDLER, formerly of the University of Michigan, has joined the staff as assistant professor of accounting.

EDWARD WALLACE has been added to the staff as lecturer in accounting.

OHIO

Miami University:

DONALD E. GARRISON and HARRY M. GERLACH have been appointed assistant professor of accounting. ALBERT G. WALD has been promoted to the rank of assistant professor.

C. R. NISWONGER has been promoted to the rank of professor of accounting and head of the department.

OKLAHOMA

University of Tulsa:

New staff members are ALLAN T. STEELE and LOWERY F. MCKEE, assistant professor and lecturer in accounting, respectively.

PENNSYLVANIA

Grove City College:

C. L. ELSDON has been appointed professor of accounting upon the retirement of W. C. COLLINGS.

TENNESSEE

University of Tennessee:

New appointments include VERN H. VINCENT and WILLIAM C. HENRY as associate professors, and JULIA H. BOYD and WARREN H. SLAGLE as instructors.

TEXAS

Texas A. and M. College:

R. M. STEVENSON, formerly of Pennsylvania State College, has been made professor of accounting.

THOMAS W. LELAND, head of the accounting department and president of the American Accounting Association, has recently addressed the Ft. Worth and El Paso chapters of the Texas Society of CPA's, the Sabine chapter, NACA, and the Southwestern Social Science Association meeting in Dallas.

Two members of the department, E. M. WHITE

and F. L. HAYS, passed the November CPA examination.

University of Texas:

JOHN ARCH WHITE addressed the spring meeting of the Southwestern Social Science Association in Dallas on the subject of "Questions in Accounting Theory."

FRANK D. GRAYDON addressed the same meeting on the subject of visual aids in teaching college accounting.

Texas Christian University:

ROBERT H. GREGORY addressed the spring meeting of the Southwestern Social Science Association in Dallas on the subject of results of research at T. C. U. in testing accounting aptitude and achievement of students.

North Texas State College:

O. J. CURRY addressed the spring meeting of Southwestern Social Science Association on the subject of replacement costs in measuring income

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BOOK REVIEWS

FRANK P. SMITH

Municipal and Governmental Accounting. (Second Edition) Carl H. Chatters and Irving Tenner. (New York: Prentice-Hall, Inc., 1947. Pp. xiv, 593. \$5.00.)

The new edition of this text in municipal and governmental accounting has an improved topic sequence as compared with the old edition. The "Part III—Revenues and Expenditures" of the original edition, which covered the classification of revenue and expenditure accounts, budgeting, revenues, and expenditures, now precedes the section devoted to specific funds, or is incorporated therein. In general a consolidation has been made of various topics which were somewhat scattered in the original edition—an example of this is the utility fund which is covered in two consecutive chapters in the second edition instead of in two widely separated chapters as in the original edition. The fifty-four page chapter on federal accounting which was part of the original edition is omitted because, as stated in the preface to the second edition, "the subject has now developed to a point where it cannot be treated adequately in one chapter."

The second edition begins with a three chapter discussion of the essential principles of governmental accounting, the classification of revenue and expenditure accounts, and budgeting. Specific funds are then discussed in ten chapters: general, bond, sinking, working capital, special assessment, trust and agency, and utility funds. Eight chapters cover fixed assets, bonded debt, inter-fund relationships, cash, investments, general property taxes, liabilities, cost accounting, and financial reports. Three appendices contain definitions of governmental accounting terms, an extensive bibliography, and a group of discussion questions and problems arranged by chapters.

The text emphasizes operational and budgetary procedures and reports (statistical as well as financial) thus giving the student not only an understanding of how state and local governmental units function, but also an appreciation of the limitations usually imposed upon the financial affairs of governmental units by typical laws and regulations. The chapter on financial reports selects the reports and schedules, found in various parts of the book, which might be incorporated into formal governmental financial reports. One of the outstanding features of this text is the profusion of illustrative material; over one hundred forms, reports and schedules supplement the textual material.

As a result of the emphasis on the operational and reporting aspects of governmental units the text may have obscured the discussion of the philosophy and theory of governmental accounts as *accounts*. Although there is a profusion of transaction analysis presented in the fund chapters, in formal general journal form, the beginning student in governmental accounting might find a thorough-going but abstract discussion of the nature and purpose of governmental accounts helpful

in the early stages. The many reports and schedules derived from the analyses of accounts do, of course, serve as a means of illustrating the nature of accounts peculiar to governmental units.

In any text which attempts to give a complete picture of governmental operations the necessity of keeping the material within bounds will require the imposition of a limit on any extensive exploration of controversial points or alternative theories in areas not unique to governmental operations. Thus in the discussion of public utilities operated by governmental units the capitalization of interest during construction is specified (page 183) without mention of an alternative treatment, and the write-off over time of purchased "goodwill" or "going concern" value is given (page 205) as the proper procedure in all cases. The cost accounting chapter is fairly short and does not develop the subject in any intensive or extensive manner, but, as the authors point out (page 337), it is considered beyond the scope of the book to go into the details of governmental cost accounting. The chapter on working capital, in its discussion of the assembly and distribution of charges for services and materials to other funds might also be considered, in part at least, as a chapter on cost accounting.

The questions and problems, which supplement the chapters, appear to be well designed and should prove helpful in the discussion and study of the main topics of the chapters to which they relate. Many of the questions and problems appeared in the original text in the same form, except for dates.

The text is clearly written, the topics are presented in logical sequence, and the whole area of governmental accounting as it applies to state and local units appears to be uniformly covered. The text should not only give the student a firm foundation in the use of governmental accounts but also a knowledge of the related financial aspects of governmental operations as well.

BERN C. LEMKE

Iowa State College

Investigations for Financing (Third Edition). David Himmelblau. (New York: The Ronald Press Company, 1947. Pp. xx, 372 and 79 of solutions. \$6.00, with binder \$7.00.)

"Investigations for Financing" is the third edition of the authors' "Advanced Auditing" published in 1928 and revised and first published under the present title in 1936. It is one of the well known Northwestern series set up on the "Unit Lecture Method" in which the text, problems, questions, and a set of correlated audit working papers are combined to form an integral presentation.

The authors state on page one that "This volume is limited to accounting investigations in connection with proposed long-term financing with emphasis on the

statements required by the Securities and Exchange Commission when securities are to be sold to the public." The student is presumed to have completed an auditing course covering annual audits for stockholders and, of course, to have a sound background in accounting principles.

This edition follows the same outline as the previous edition with no material changes in the first eight lectures which introduce the problem and discuss the auditing procedures and accounting principles applicable in determining financial condition. Special attention is given to inventories and to property accounts and the related problems of depreciation and appraisals. In view of the adoption generally of depreciation accounting in the utility industry since the last edition of this book, some comment would have been appropriate with respect to the quotation from the Detroit Edison Company 1928 report to shareholders in which a particularly vulnerable example of retirement accounting is set forth. At page 153 the authors state that "there is no agreement" as to whether "generally accepted accounting principles" require that depreciation be computed on appraisal value or original cost in determining annual income. It should be observed, however, that the American Institute of Accountants' Committee on Accounting Procedure expressed itself on this subject in Research Bulletin No. 5 in which the position was taken that fixed assets should be carried at cost but if appraisals have been recorded the annual charge for depreciation should be based on the appraised value. Adherence to cost was reemphasized in Bulletin 33 in which the current effort in some quarters to deal with the effect of high price levels on the determination of income is considered. This latter subject is material for the instructor and practitioner, however, as the Himmelblau text went to press before Bulletin 33 was adopted.

Major changes were necessary in revising Lectures 9, 10, 11 and 12 to recognize the adoption of new forms and Regulation S-X by the Securities and Exchange Commission and the substantial concurrent changes in the form of the accountant's report or certificate. These chapters with their up-to-date examples from prospectuses and reports afford an excellent discussion of present requirements and procedures. However, the student and practicing accountant should heed the authors' advice given on page 22 to keep abreast of current literature. This is particularly important with respect to indications of professional agreement on generally accepted accounting principles and auditing standards and procedures and with respect to S. E. C. requirements as embodied in the forms, Regulation S-X and Accounting Series releases. The remaining three lectures cover reports and report writing, insurance and trust indentures, and industrial analysis in substantially the same form as the previous edition.

On some points of accounting principle the text states opposing views without indicating the authors' preference. In some cases the solutions to the problems or answers to the questions presumably resolve the doubt. There is ample material here for a most thought provoking course dealing with the very highest level

of professional accounting practice.

ANDREW BARR

Washington, D. C.

Intermediate Accounting, Arnold W. Johnson. (New York: Rinehart & Company, 1947. Pp. xiii, 778. \$5.50.)

An author who would write an acceptable second-year accounting text sets himself a difficult task. He must determine what topics should be included in the text and the relative emphasis each topic should receive. "Generally accepted accounting principles" must be presented and controversial questions must be discussed fairly and without prejudice. Finally, the material must be presented in clear and forceful language, in a logical and reasonable sequence, and with a sufficient number of appropriate laboratory problems to meet the varying demands of accounting instructors. The text under review meets most if not all of these requirements.

This book of more than 775 pages is divided into 29 chapters, an appendix, and an index. Following very brief chapters entitled "introduction" and "single entry," current assets are discussed, one chapter being devoted to cash and accounts receivable, two to inventories, and one each to installment methods and consignments. Two chapters on "actuarial science" are followed by chapters on "bond valuation," "amortization of discount and premium on long term bond investments," "valuation of security investments," and "insurance."

Depreciation is covered in two chapters followed by chapters on "depletion," and "valuation of fixed assets," "appraisals," "valuation of intangible assets," and "goodwill," in the order named. The remainder of the text gives one chapter to "bonds payable," two chapters to "capital stock, surplus, and reserves," one chapter to "income determination and measurement," two chapters to "financial statements" and one each to "statement of source and application of funds," "analysis of variation in profits," "ratios," and "budgeting."

The text has many commendable characteristics and features. The language used is direct and straightforward, easily read and understood, and on the whole quite acceptable. One of the outstanding features of the book is the large number of problems which are closely related to the text material and which appear to be quite satisfactory for the purpose of presenting the principles discussed in the text material. From 10 to more than 25 problems are included with each chapter and at the end of the chapter. Of the total text material, the problems constitute from 35 to 45 per cent.

Generally accepted principles of accounting are fairly presented in an orthodox manner throughout the text. There are a few minor items, however, on which there might be some disagreement. In the discussion of appraisals, it might have been well to present the idea that depreciation may be taken on appreciation, as outlined in Bulletin No. 5 of the American Institute's Committee on Accounting Procedure. Opponents of the "LIFO" method of accounting for inventories would not agree that the treatment was entirely fair and unbiased, and might seriously question the logic

or the soundness of the reasoning whereby it is concluded that 100% ownership of \$20,000 is better than 70% ownership of \$30,000.

The order of topics, as indicated by chapter headings, forms no particular logical pattern and might well be criticized. For example, a discussion of principles of income determination and measurement might well have come before the consideration of the same problems in its detailed application. Depreciation might be treated after a consideration of the broader principles of valuation as applied to the non-current asset group.

Very few authors or teachers are in exact agreement as to the relative emphasis to be given to various topics. Some examples will illustrate this difference. Chapter one which is intended as a "review" chapter contains four pages of general material, no "review" material, but fourteen pages of "review" problems. Of the fifteen pages devoted to a discussion of accounting for cash and accounts receivable, six are used to explain "cash discounts" and "average date of an account," while notes, drafts, and other similar paper are omitted altogether.

Those instructors who wish to emphasize the mathematical aspects of certain accounting problems will be pleased to find two chapters on actuarial science and a twenty page appendix of "interest tables" showing amounts and present values of 1. In addition the chapters on bond valuation and amortization of discounts and premiums are quite largely mathematical, with additional application of mathematical process found in the chapter on depreciation and on bonds payable.

Many instructors will be disappointed to find that current and contingent liabilities are not included in the very brief six page index, and are not included in the discussions anywhere, not even in the section dealing with the "classification and presentation of equities." (page 530). Some will question the propriety of devoting more than 65 pages, or about 15 per cent of the total discussion material, to reproductions of financial statements which might well be obtained in original form direct from the issuing companies.

In spite of the apparent weaknesses, this text will be welcomed to the growing literature on the science and art of accounting because of the real contributions it makes.

D. M. BEIGHTS

Rollins College

Internal Control Standards and Related Auditing Procedures. Walter H. Kamp and James A. Cashin. (Stamford, Conn.: Brock and Wallston, 1947. Pp. xix, 80. \$5.00.)

The authors of this book hold the positions of Comptroller and of General Auditor, respectively, of the Bristol-Myers Company. The purpose of the book, as stated by the authors, "is not to teach internal control theory or auditing principles but rather to present in concise form a new approach to the practical solution of current problems in internal control and auditing technique." The case material was designed to answer some of the specific managerial control and internal auditing problems of their company and its various

subsidiaries. The book is not intended to be a textbook but instead is primarily a compilation of standards and procedures which might serve as an aid in the establishment of effective internal control.

In the six pages devoted to a general discussion of internal control and of audit principles and techniques, several observations are made which often do not receive sufficient emphasis. It is pointed out that internal control is thought of too often only in terms of its relationship to accounting instead of the broader objective of assurance to management that basic policies of management are being executed. This concept classifies internal control as an important tool of management rather than an accounting device only. Internal control must retain flexibility in order to reflect changes brought about by accounting decisions and brought about by decisions of executive management itself.

The three essential steps in establishing effective internal control are described as (1) establishment of internal control standards, (2) the design and installation of the necessary detailed methods and procedures, and (3) the development of verification procedures. Internal control standards are described as those conditions or policies which are the result of a series of decisions, part of which are accounting decisions, and many of which are management decisions. The decisions themselves may be called internal control standards.

It has been recognized for some time by public accountants that often, depending upon conditions present, the principal emphasis in an audit program may properly be placed upon the verification of procedures rather than the verification of transactions. The importance of this method probably has not been stressed sufficiently in the current literature. The authors of the book under review apply this method to internal auditing, and indicate that considerable care should be devoted to the development of internal control standards and then the internal auditing practices should be adapted to the verification of the fact that those standards are being followed.

The correlation of the activities of the internal auditor with those of the independent accountant is discussed briefly.

Two pages of the book are devoted to examples of general policy relative to the authority and responsibility for all capital expenditures and for expenditures other than for capital items. The remaining pages consist of case material covering internal control standards and the audit programs used in conjunction therewith. Case material is presented for cash on hand and in banks, marketable securities, fixed assets, payroll, and many other topics, with subdivisions given under most of the topics. Space is provided on each sheet for indicating whether the various procedures in the audit program were performed by the internal auditor or the external auditor, and also for the date of verification.

This book should furnish a valuable guide and useful examples to a firm interested in installation of effective internal control. It should also be useful to independent accountants as an example of internal control standards which may be in effect under specific

conditions, and of the correlation of the work of the internal auditor and the external auditor under those conditions.

C. A. MOYER

University of Illinois

Advanced Accounting Problems (Second Edition). E. L. Kohler. (New York: Prentice-Hall Company, Inc., 1947. Pp. xix, 300. \$3.75.)

Solutions for Advanced Accounting Problems (Second Edition). E. L. Kohler. (New York: Prentice-Hall Company, Inc., 1947. Pp. vi, 569. \$4.50.)

The second edition of Kohler's "Problems" is essentially the same as the first which was published in 1939. Of the original 134 problems, however, six tax problems have been scratched because of changing tax provisions. Twenty-seven new problems of heterogeneous character have been added.

The problems now included run the gamut from personal accounting to consolidations and, in the amount of time required for completion, from one to five hours. They are similar to problems used in C.P.A. examinations but are quite commonly thought to include a greater number of points per problem than are found in C.P.A. examination questions. The audience to which this book is directed is primarily those who are studying advanced accounting and preparing to take the C.P.A. examination. For this purpose it is an excellent source of problems which can be used to simulate examination conditions in which the student is required to think rapidly, to organize a system of presentation, and to execute a solution which can be clearly understood by others.

In his preface, the author indicates that he hopes the book can be used not only to test, but also to teach. It might further be hoped that the *primary* use would be the latter, for when these problems are used in connection with class work under conditions which give the student an opportunity for discussion and questions about the implications of the many points, the opportunities for learning methods and techniques and acquiring mental flexibility in approaching accounting problems are great indeed. On the other hand, students working alone can, with the help of the volume containing the solutions, develop the techniques for handling certain kinds of points and learn to solve problems effectively.

The wide range of problems included in this book offers an excellent opportunity for students to learn about the nature of the problems given in the C.P.A. examination and a fine opportunity to simulate examination conditions.

JOHN A. BECKETT

Massachusetts Institute of Technology

Fundamentals of Accounting. Perry Mason. (Brooklyn: The Foundation Press, Inc., 1947. Pp. xii, 542. \$5.50.)

This book is a revised edition of Professor Mason's elementary text of the same title published in 1942. The revision, however, is not extensive. The chief differences are two: the addition of a chapter on non-

cost factory accounts, to precede his two chapters on production cost accounting, and the inclusion of nearly seventy-five per cent more material in the section devoted to questions and problems.

The excellence of the laboratory materials and the competent treatment of theory and methods in the text commend the book as one of the best available for use at the college level. Professor Mason writes with admirable clarity. He succeeds in introducing into an elementary text a wealth of illustrative material of the most practical kind. Deserving of special mention is his use of a practice set based on a business which uses punch-card tabulating equipment and numerous machine-kept records.

Professor Mason's method of introducing accounting to the student is the time-honored, if time-worn, balance sheet approach. After the usual preliminaries, he employs the somewhat unusual method of applying the basic concepts to the operating accounts of a manufacturing enterprise. The discussion of merchandising operations he leaves to be developed fully in Chapter 10.

In some quarters this might be objected to as too abrupt an introduction to the complexities of production accounting. The reviewer believes this to be a weakness in presentation only in terms of what follows in the arrangement of the text. Chapter 5 deals with journalizing, including special-column journals with eight columns; Chapter 6 deals with general and subsidiary ledgers, including the operation of controlling accounts; Chapter 7 covers special journals and the voucher system.

Granting that exceptional students will be able to assimilate such material in the first six or seven weeks, the reviewer is led to question the likelihood that such will be the case with beginning students on the average. For such ones, however, as are able to meet the challenges of early contact with material difficult to comprehend, the remainder of the text provides solid footing on which to proceed to a thorough grasp of accounting concepts and procedures. Income determination and distribution, merchandise accounts, adjusting entries, work sheets, major items in the asset, liability and proprietary categories, and production cost accounting are presented in a clear, logical manner. Preceding the chapters on financial statements and their analysis is a chapter devoted to consolidated statements. Parent and subsidiary accounting is briefly covered in this chapter, the wisdom of which might be questioned.

Included in an appendix are two chapters of additional material, one on accounting requirements of federal income taxation, the other on business organization and methods. Two excellent practice sets are included, one of which was mentioned above.

E. BURL AUSTIN

Oklahoma A. and M. College

Federal Taxes—Estates, Trusts and Gifts 1947-48. Robert H. Montgomery and James O. Wynn. (New York: The Ronald Press Company, 1947. Pp. 1050. \$10.00.)

For over thirty years attorneys and accountants working in the field of taxation have had available the annual reference books written by Robert H. Mont-

gomery and various members of his staff. In the earlier volumes the material on estates, trusts and gifts occupied a small portion of a single book. For the past several years the number of laws, regulations and decisions relating to this field of taxation has justified a special volume devoted to this limited area.

The arrangement of the material in the current volume is the same as that followed in the 1946-47 edition. The following outline will indicate the general purpose of the book as well as the relative amount of space devoted to the various topics.

Part I—Methods of Estate Distribution. A single chapter of thirty-six pages serves as a summary of the principal features of the estate and gift taxes, and indicates the type of planning which must be carried out in order to minimize taxes and bring about the intent of the owner of property as to its ultimate distribution. The problems of *inter vivos* as compared with testamentary transfers, the division of income-producing property, and the provision for the estate tax in connection with testamentary transfers are the principal topics discussed in this chapter. A number of useful tables have been prepared to show the effect of the various taxes and of possible combinations of methods of distribution.

Part II—The Income Tax on Decedents, Estates and Trusts. Nine chapters, containing three hundred sixty-four pages, are devoted to a selection of material from the law, regulations and decisions relating to the federal income tax on decedents, estates and trusts. While it constitutes a reasonably complete guide, it does not pretend to eliminate the necessity of referring to other sources of information on certain points. For example, on page 70 the subject of capital gains and losses is covered merely by referring the reader to the treatment of this problem in the computation of the income tax on individuals. Incidentally, several pages were devoted to capital gains and losses in the 1946-47 edition and this is one of the few deletions which were made in designing the new volume.

Part III—The Estate Tax. Seven chapters, containing four hundred twenty-eight pages, present a detailed analysis of the federal estate tax. As in other parts of the book, the material is organized primarily according to the various steps which must be taken in the preparation of the return. Related quotations from the Code and Regulations, paraphrases and quotations from rulings and decisions, and comments and suggestions of the authors are woven together in a connected sequence so that each step is given a thorough analysis.

Part IV—The Gift Tax. One hundred thirty-seven pages, divided into five chapters, explain the details of the federal gift tax.

The Indexes. Five useful indexes have been prepared by the authors. Their titles are: Table of Law Sections, Regulations, Treasury Department Rulings, Court Decisions, and General Index.

Although the general outline and much of the material are identical with that found in the 1946-47 edition, many changes have been made throughout the book. The most significant and extensive changes are those appearing in chapter 7, Trusts, in which the Grantor Retains an Interest in Corpus, where a com-

prehensive discussion is given to the "Taxation of Grantors of Trusts under the *Clifford Doctrine*" (*Helvering v. Clifford*, 309 U. S. 331). The court in this case held that, although the trust was valid under the pertinent state law, the grantor must be considered as remaining in substance the owner of the trust corpus because of the short duration of the trust, the fact that the wife was the beneficiary, and the retention by the grantor of broad and extensive powers with respect to the management and investment of trust property. Since there was no specific section in the Code to cover this type of case, the court ruled that the income was taxable under the very broad provisions of section 22(a) which is merely a general definition of "gross income." The authors characterize this decision as "judicial legislation" and indicate that the result has been "utter confusion," but attempt to determine from the maze of rulings, decisions and regulations what the probable effect will be in various types of cases. Other changes which have been made at various places in the volume include the addition of references to new rulings and decisions, new paragraph headings, additional illustrations, speculations as to new legislation, references to new death tax conventions with foreign countries, a number of paragraphs on topics not covered in previous editions, and a few deletions of obsolete or unimportant material.

The reviewer observed no significant errors in the book. He does feel, however, that Colonel Montgomery, as an accountant, should have objected to the use of the term "depreciation" on pages 12 and 13 as the opposite of "appreciation." "Decline in value" would have been a better choice.

The book is written in a style more suitable to the vocabulary and training of a tax attorney than of a tax accountant, but an accountant who has had experience in using and interpreting the language of the Code and Regulations will have no difficulty in using this material effectively. It is no reflection on the work of these authors to point out that such a reference book must, of course, be used in connection with other services which supply continuous supplements of current rulings, decisions and new legislation. The unique feature of this book is the collection of interpretive comments and opinions of the authors which give it an atmosphere of personal consultation. If the reader becomes fatigued from the technical complications which characterize the subject, he is referred to the entertaining and salty comments of the senior author in the Preface.

PERRY MASON

University of California
Berkeley

Cost Accounting. Charles F. Schlatter. (New York: John Wiley & Sons, Inc., 1947. Pp. 700. \$6.00.)

This new book is a revision and expansion of two earlier volumes by the same writer which, like the new treatise, is a part of the publisher's accounting series edited by H. T. Scovill. The author is Professor of Accountancy and formerly Associate Dean of the College of Commerce and Business Administration at the University of Illinois.

The two volumes that are replaced by this new book are "Elementary Cost Accounting" and "Advanced Cost Accounting," published in 1927 and 1939, respectively. These older volumes contained 44 and 55 problems respectively, a total of 99; the new text has a total of 147 problems, 82 in the portion originally covered by Elementary and 65 in the Advanced section. As stated in the preface, "Only a few of the problems have been revised and retained. Most of the problems are new. To provide for variety, some problems are long and others are short; some are involved and difficult, others not so difficult. All problems bear directly on the subject of the chapter at the end of which they appear."

The readers will find entirely new material on purchase discounts, pricing of materials for consumption, social-security taxes, premium wages, payrolls, burden, calendar variations, cost reports, basic standard, and current standard costs.

Since writing the first editions of the older books mentioned, the author has become even more convinced than before that a cost-accounting textbook should stress the control of cost as being the chief purpose of cost accounting. With this in mind, he tried at all times to emphasize principles more than procedures. The writer realizes, of course, that for the purpose of expediting the procedures, or for other reasons of practicality, it is sometimes necessary in practice to compromise and to deviate from strict principles. That all such compromises and deviations should always be recognized for what they are and that they should never be mistaken for principles is stressed.

The first chapter is an introduction of about ten pages and of course does not have any problems.

An adaptation of cost-accounting principles to the requirements of a small retail store is explained in Chapter II. This makes a good introduction to the subject of cost accounting because of the students' familiarity with the operations of a trading concern and because of the simplicity of the procedure in a retail business as compared with that in a manufacturing concern.

In Chapter III the subject of general accounting for the factory is explained. Such accounting is simple but inadequate in most situations. It is explained for three reasons: first, it is in use in some plants, and, therefore, an accounting student should be familiar with it; second, it serves as an introduction to factory procedures as contrasted with those of trading businesses, which procedures must be reflected in the system of accounts. The student should here learn something of the problems which face the factory accountant and which do not appear in the business of trading in goods. Third, it seems desirable to impress upon the student the inadequacies of this type of accounting for most manufacturing businesses.

Chapter IV explains some fundamental items among which are expense distribution, inventories in general accounting, running inventories in cost accounting, distinction between costs of production and general expense and then about 18 pages on cost accounting for parallel processes. These pages include a flow chart, a

complete illustration with transactions, closing entries, cost distribution sheet, and combined distribution journal entry.

Sequential process cost accounting is described and illustrated by using cement manufacturing as an example in Chapter V. Twenty-two pages of explanations and twelve problems are available.

Chapter VI gives the basic description of job-lot cost accounting emphasizing the ledger accounts and flow of transactions. This chapter is followed by cost reports including financial statements for both job-lot and process cost accounting systems and also service departments in any system. Illustrations of books of original entry, their functions and uses are given in Chapter VIII. The next three chapters explain the detailed accounting for materials and supplies, labor, and burden. The burden chapter explains a budget with both fixed and variable expenses, the application of burden, the analysis of the balance, and the disposition of over- and under-absorbed burden.

Although the titles of Chapters XI through XVII do not contain the word standard, the student who already has some conception of the broader aspects of cost accounting will readily recognize that each chapter is vitally concerned either with the bases or with the uses of standards for costs. The first of this series of chapters introduces the subject of standard burden rates. The other chapters explain, (1) the different results obtained from the uses of different bases for burden rates, (2) the use of standard rates for expressing the metal cost and finishing cost in the production of gray-iron castings, (3) correct expense distribution, without which there can be no bases for standards for a large part of the indirect element of cost, and (4) control, that is, the uses of standards for expenses by showing how the comparisons of actual expenses with the flexible standard budgets are made.

Chapter XVIII deals with the effect of volume of production on the total costs and profits—a subject not directly concerned with standard costs but injected at this point because volume is the factor common both to the losses known in standard costs as activity-variation losses and to the net profits or losses.

The next two chapters are on "Standard Costs" and deal with the more obvious phases of standards for materials and labor and with the application of what is called full standard burden. Seven kinds of variations from standard are explained as are the adjustments necessary to change from standard to actual.

The last three chapters discuss, (1) profits and losses resulting from price changes, (2) waste, spoilage, scrap, by-products, and joint products, and (3) interest as a cost of manufacturing. The last one is a debatable subject and both sides are presented.

This text is exceptionally well written and the problems are very useful for good teaching. Both students and practitioners, not to mention instructors, will enjoy using and learning from this volume.

W. E. KARRENBROCK

University of California
Los Angeles

Industrial Accounting, Complete Course. Samuel W. Specthrie. (New York: Prentice-Hall, Inc., 1947. Pp. vii, 395. \$5.35.)

This text, containing thirty-seven chapters, is 115 pages longer than its predecessor, which was published in 1941. The new chapters that have been added include material on promissory notes, depreciation accounting, corporation accounting, and operational cost accounting. The work is designed primarily as an elementary textbook for a two-semester course for non-accounting majors, particularly engineering students.

The traditional balance sheet approach is employed in developing the rules of debit and credit, the general journal being introduced immediately following the consideration of simple balance sheets and operating statements. The space devoted to columnar journals, worksheets, and adjusting and closing entries is adequate for a terminal course. The problems encountered in designing a one-year course encompassing both introductory principles and a rather extensive survey of cost accounting techniques have been well resolved. Subjects usually included in an elementary text which Professor Specthrie has chosen to exclude are the voucher register, bank reconciliations, petty cash system, and partnerships.

Roughly, the second half of the text is devoted to the development of principles of cost accounting. The introductory chapter on manufacturing costs and uses of cost accounting is followed by a rather complete coverage of job lot accounting, a one-chapter discussion of process accounting, and two chapters dealing with operational cost accounting. The text concludes with three chapters on the subject of accounting as an aid to management. Seventy-five problems and 200 questions are provided. They tie in with the text material and are well balanced as to difficulty. Two practice sets are available separately.

It is inevitable, in attempting to cover so much ground in three hundred and ten pages of text material, that there would be little space available for presenting alternative methods of handling particular situations or discussions of controversial points. The resulting oversimplification is unavoidable and probably not too objectionable, considering the particular use for which the book is intended. In discussing distributions to shareholders the reason given for the usually conservative dividend policy adopted by corporate directors is that those who vote for an illegal dividend become personally liable to creditors in the event debts cannot be paid because of the illegal distribution. In the opinion of the reviewer it would have been preferable either to state the more usual reasons, such as maintenance of a fixed dividend rate, reinvestment of earnings, provisions for possible future losses, etc., or to avoid the subject entirely. Contrasted with this too brief treatment of dividend policies is the explanation given for the use of the alternative title "profit and loss statement" and "income and expense statement." The statement is made that the former title refers to the operating statement of an enterprise which sells commodities, while the latter title is used by a business that renders services

The reviewer doubts the value of making such a differentiation in an elementary text, as well as the foundation for such a distinction in either theory or practice.

Two physical characteristics of the text which are somewhat unusual may be mentioned. Chapters are, for the most part, very short, ranging from three and one-half to fourteen and a half pages, with one-fourth of the total number running to less than six pages. Italics are used throughout the text to emphasize important words and phrases. Although this device may aid some students in comprehending the material, others may find it mildly irritating, particularly where it is used in a third of the lines in a paragraph.

Written in a direct and simple style, the work is easy to read. Explanations are accompanied by appropriate illustrations. All in all, it should prove quite satisfactory for a one-year course for engineering students and others who need a working knowledge of accounting and its applications to manufacturing enterprises.

C. ROLLIN NISWONGER

Miami University

Cost Accounting. (Second Edition) Clarence L. Van Sickle. (New York: Harper & Brothers, 1947. Pp. ix, 889. \$5.00.)

The second edition of this standard cost accounting textbook represents a very slight revision over the first. Professor Van Sickle has added a new chapter on Cost Accounting and Cost Control. He has condensed the three chapters which appeared in the first edition on budgeting into one as he has done with the three chapters dealing with marketing costs. Chapter 9 in the first edition, *Mechanical Appliances Used in Compiling Costs*, has been deleted because the author feels that the teaching of this subject is too difficult unless the school has an adequate office machines laboratory—a thing which too few schools possess. The chapters on standard costs have been slightly revised. With these exceptions, the second edition of *Cost Accounting* appears to be identical to the first—even as to problem material.

For the benefit of those who might be unfamiliar with the first edition, Professor Van Sickle has written an exhaustive and well organized treatise on all phases of cost accounting. He presents detailed descriptions and exhibits of all the types of cost accounting techniques now in use. Controversial matters of theory are ably and impartially discussed.

The revised edition consists of 625 pages of text divided into 26 chapters which are in turn organized into 8 main parts. These parts are: Cost Applications, Cost Factors, Cost Elements, Cost Systems (job order and process systems), Standard Cost System, Cost Adaptations, Marketing Cost Systems, and Budgetary Control. At the end of each chapter, the author lists the chapters in other cost accounting texts which deal with the same subject. A great deal of problem material (234 pages) and a well compiled index make up the rest of the book.

The problem material is the same as that which appeared in the first edition. This is unfortunate as

some of the problems are quite old. For example, the inventories in the first problem are dated 1924 and the problems selected from CPA examinations are from those given in the twenties and early thirties.

There is always considerable argument over the order in which topics should be presented to students in any given course. In this case, it seems that the sequence could be improved. To begin with, the first four chapters are devoted to discussing cost accounting control and cost accounting statements and reports. Students normally do not understand much of this unless they are familiar with the methods of collecting cost data which of course is covered later. Another thing is that the chapter arrangement does not synchronize with the usual college curriculum—at least the curriculum of those schools on a semester basis. The text is too long to be covered effectively in one semester and there is no place for a middle break-off point. The first fifteen chapters discuss in general terms cost accounting concepts whereas the application of these concepts to job order and process systems is covered solely in the last ten chapters. This means that the book would have to be used in either a full year course or in a one semester five hour course. Lastly, it would seem that the chapter of budgetary control, which is the last one in the book, should come before those on standard costs and marketing costs.

DAVID W. THOMPSON

Indiana University

Practical Controllershship. David R. Anderson. (Chicago: Richard D. Irwin, Inc., 1947. Pp. xvi, 528. \$5.00.)

Probably every book on accounting and every accounting teacher in every course has said in one way or another, "Accounting must be *useful*, the accountant must serve management, every accounting device should be tested in terms of its aid in making executive decisions!" All too often these statements have been nothing but pious lip-service. Here, however, in *Practical Controllershship*, we have a book whose author really takes the *use* phase of accounting fully to heart—and does something about it. It should be required reading for every teacher and anyone else who really wants to know what accounting and management mean to each other.

It would be a profitless task and unfair to the book to attempt a routine review of its substantive content—for the array of topics would not sound striking nor original. It is rather what Anderson does to those topics—the fresh intensity with which he attacks them—that constitute a real contribution to accounting thought.

This point could be illustrated by quotation from a hundred pages. As early as page three Anderson dutifully lists the "Duties of a Controller, as Defined by the Controllers Institute of America," but on the next page he breaks out his own banner in the following quotation which may be taken as the topic sentence of the whole book. Says Anderson:

"The fact is that the controllership function is in a state of evolution, and in order to understand the real nature and essence of the function and its possibilities

it is necessary to dig under the surface phenomena of titles, lists of duties, and organization charts, review the way the function has developed, and analyze the basic character of the services it is being called on to render to business today."

Of course it is easy on page four to say "let us analyze the basic character of controllership," but the point is that after going through the book carefully one can come back to this early promise and feel that it has been fulfilled.

There are many, many places in the twenty-four chapters in which the author of necessity is raking over the ashes of seemingly familiar subject matter, but the wonder is that he seems always able to uncover enough live coals to make the raking worth while. He does not review old matter just because he happens to know it, but always because it is necessary background for a really worthwhile point which has to be made. Suddenly one realizes that he has moved through the maze of stodgy familiarities and come out right at some really useful point. Sometimes this development is delicate—hanging on just the right word at the right place.

An example is his introduction at the beginning of Chapter XI, Marketing and Administrative Costs. The first paragraph reviews very briefly the relationship of factory costs to cost of goods sold "... so that in the profit and loss statement there is a direct correlation of manufacturing costs with the sales to which these costs are applicable." Then comes his transition from the known and familiar factory costs to the new subject.

"Marketing and administrative expenses, on the other hand, are usually charged to profit and loss as incurred, without any attempt to relate them to specific products or specific sales, but with the obvious implication that they are related to the production of current income.

"This implication in the profit and loss statement that all marketing and administrative expenses are related to current income does not always stand up under close analysis."

The repeated use of the word *implication* throws just the right light for his purposes. It brings to mind a dozen income statements to which the reference is obviously applicable; it raises the issue sharply; it promises exacting scrutiny without pre-judging the case.

Subsequent paragraphs make good the promised analysis. Lest any impression be given that new or radical doctrine is about to be sponsored, let the writer assure you that Anderson comes very soon to the "conservative" doctrine that "sound accounting" fully justifies the customary way of handling marketing and administrative costs for statement purposes. Be it noted however, that Anderson himself put the quotes around "conservative" and "sound accounting" in the discussion here referred to.

Having given due respect to proper accounting for statement purposes Anderson goes on with his demonstration that for management purposes there is need for much further analysis of marketing and administrative costs. He is very clear, and makes his point clear to the reader, that such further analysis need not be terms of formal entries in the accounts. Yet he is very convincing

in his assertion that it is of the very essence of the controller's job to make such analysis and to see that it is effectively presented to the management.

The foregoing is just one illustration first, of Anderson's skill in writing, and second, of his careful, judicial handling of matters which if carelessly treated can lead to useless controversy. Again and again throughout the book the reader will be impressed with similar instances of Anderson's full and sure command of the situation.

This confidence which the reader feels in the author as the book unfolds comes to a great extent from the restraint and modesty with which the author appraises the usefulness of the various devices and suggestions which he makes. This is true of his appraisal of the budget, the various uses of manufacturing costs, profit planning devices and all the many other practical suggestions. Throughout, the author seeks to induce a healthy respect for the tremendous complication of the real problems of administration, by his steadily implied or expressed caution that there is seldom a simple answer to any worthwhile question.

The writer used *Practical Controllershship* as a text during part of the semester just concluding in a class of forty upperclassmen. An attempt to judge the book as a text may be important aside from its value as a contribution to accounting theory and practice. Much that was said above as to the general excellence of the book bears of course, on its usefulness for class use. In addition to its substantive educational value however, this book, used as a text will be extremely useful in giving the students a much needed jerk away from the formal debit-and-credit—financial-statement thinking and public accounting orientation, which have been so overdone in many texts and courses in the last twenty years. Administration, management, control, are after all of first importance in accounting. Our students need at least one good solid semester devoted fully and frankly to this viewpoint.

And here is the one lament in this otherwise solid panegyric: The book has no problems in it. Maybe that would be expecting too much; the author probably did not think of his book in terms of classroom use. It would be a huge task to supply the kind of problem series that would be ideal for use with such a book. Without such problems the task of keeping the discussion realistic imposes a considerable burden upon the imagination of the teacher. Even as it is, however, a class of professional-minded students and a good teacher can have a Roman holiday of discussion and a tremendous benefit from this really fine book.

LEO O. SCHMIDT

University of Michigan

Allocation of Income in State Taxation. George T. Altman and Frank M. Keesling. (New York: Commerce Clearing House, Inc., 1946. Pp. 263. \$4.00.)

Writing this review brings your reviewer back to state income taxation, a field in which he worked some fifteen years ago. It is disappointing, though not surprising, to find how little progress toward the elimination of jurisdictional conflicts has been made in the

intervening years. In the words of the authors "the possibilities of double and even multiple taxation on the one hand and complete escape from taxation on the other are staggering . . . Overlapping and conflicting jurisdictional claims are common. Diversity in apportionment methods and practices are widespread. 'Chaotic' is the only word which even remotely (describes) the situation."

In this book a brief explanation of the nature and importance of allocation is followed by single chapters dealing with constitutional limitations, allocation according to domicile and residence, and specific allocation according to source. Four chapters devoted to the allocation of business income include both a theoretical analysis of the problem and a state by state discussion of allocation formulas and practices. Three chapters deal with technical problems which arise in computing income assignable and tax payable to particular states. The principal problems discussed are deductions from income, credits for taxes paid other authorities, and interdependent taxes. The final chapter presents a plan for compelling uniformity in allocation methods among the states.

Accountants may be surprised that the method of separate accounting which seemed promising not so many years ago receives so little support. The arguments against it as a method for general use, however, are convincing. The right of a state to levy a tax on a portion of the income of an enterprise can hardly be denied if any part of the profit of the whole enterprise is dependent on business done within the state. The differential gain on business within the state supports the levying of the tax even though a so-called separate accounting might show a loss. Thus the unitary character of business enterprises and the artificiality of state boundaries rule out separate accounting as a method for general application. Double taxation will not be eliminated or substantially reduced by trying to divide the indivisible. Hope for improvement lies in the adoption of uniform methods of apportionment rather than in the extension of separate accounting.

This little book should be useful to anyone who wants a general review of the problems and pitfalls in the allocation of income in state taxation, particularly accountants who must prepare tax returns or devise accounting records and procedures to meet state requirements, lawyers with cases in the field of state taxation, and legislators on the state and national level who want to bring a semblance of order to this neglected field.

To compel uniformity of method and avoid overlapping the authors suggest an act of Congress (1) prescribing a uniform pattern of taxation without adherence to which no state can collect taxes on income derived from interstate commerce and (2) creating a federal tribunal of first resort for resolving conflicts among the states in determinations of either law or fact. It is a moot question whether or not the power of Congress to regulate interstate commerce is broad enough to cover the proposed act, but the suggestion, nevertheless, deserves consideration. Nothing in the past history of state taxation suggests that the states themselves will achieve reasonable uniformity in the

foreseeable future unless external pressure of some kind is applied. If the commerce power is broad enough, Congress would do well to tackle this problem before multiple taxation and jurisdictional conflicts become unendurable.

Yale University

RALPH C. JONES

Money and Banking. Raymond P. Kent. (New York: Rinehart and Company, Inc., 1947. Pp. xiii, 702. \$5.00.)

Professor Kent has written a book which gives the student an interesting insight into the historical development and present day workings of American commercial banking and of our monetary policies.

He introduces his material with an analysis of the nature of money and the sundry types of "money" erected to assist commerce; in which he has "attempted to emphasize the far-reaching effects which are involved in the establishment of particular monetary standards."

There is a description of the commercial banking structure and operations in the United States explaining the significant role of the commercial banks as our chief money-creating institutions. His discussion on central banking includes foreign banks as well as the Federal Reserve System with emphasis upon the "power and responsibility of the federal reserve authorities to control the volume of money in circulation."

The measurement of the value of money, the transactions and cash-balances theories, and "The Income Theory" are discussed in a comprehensive manner under the section entitled "The Value of Money." The chapter on the income theory synthesizes the expressions of the many contributors to this theory. This method of exposition is of more value to the undergraduate who is just beginning to become acquainted with the monetary theories than one that would attempt to specify the contribution of each economist.

There follows a discussion on monetary policy, its nature, its objectives, and a description of the policies of the Federal Reserve System and the United States Treasury, delineating "the important bearing of the fiscal operations of the federal government upon monetary and banking operations."

One-seventh of the book, titled "International Payment," covers the essentials of foreign exchange (supply and demand, means of payment, rates, and control) with a chapter on "International Monetary Reconstruction." The last section is on miscellaneous banking institutions. These are spoken of as banking institutions of the federal government, for the consumer, for the saver, in the capital market, for the farmer, and for the builder.

The author regards "money as anything which is commonly used and generally accepted as a medium of exchange or as a standard of value." Consequently he places bank demand deposits in the category of money, but excludes bank time deposits, promissory notes, and the book accounts of businessmen. The United States is presently maintaining a *limited gold-bullion standard* monetary system and is not on a fiat standard, because of our voluminous gold reserve and our acceptance of membership in the International Monetary Fund (p.83).

Should one conclude that the other countries who are members of the Fund are also on the same type of gold standard?

The organization of the subject matter, the clarity of exposition, the inclusion of sufficient detail to present an accurate working knowledge, especially of commercial bank operation, bespeak of the fulfillment of the author's aim to submit a book to cover one or two semesters work. In his desire to prepare a text for collegiate undergraduates he has not overlooked the instructive value of presenting detailed material in the form of tables, of which there are 62. Nor has he attempted to cater to diluted expressions such as "16 to 1" when it is "15.988 to 1." On the other hand, some instructors might like to have included at the end of each chapter questions and topics for further study, and also a list of suggested readings. These additions would be especially helpful, when the text is selected for a two semester course.

J. F. HALTERMAN

University of California
Santa Barbara

The Guarantee of Work and Wages. Joseph L. Snider. (Boston: Harvard Business School, Division of Research, 1947. Pp. ix, 191. \$2.75.)

This is a lucid, elementary survey of selected viewpoints and practices in the broad field of job and wage security. It is written for the business man and labor union official, rather than the industrial relations specialist, and contains a convenient digest of Snider's argument and conclusions in a 15 page summary chapter.

The book is divided into three parts. Part I is a discussion of several guarantee plans in industry. Part II deals with management's and labor's approaches to the problem of providing guarantees. Part III is an exposition of some long-range objectives of a national employment security program and contains a number of opinions and postulates that will probably receive considerably less than universal acceptance.

The book begins with reference to the fact, revealed by attitude surveys and opinion polls, that job security is the number one goal of American workers. Snider then points out that the term "guaranteed annual wages" has different meanings for different people. He uses the term to mean "either an announced policy of an employer or an agreement by an employer with a labor union, providing for a stipulated amount of work or wages during the year, to a stipulated portion of the workers. There is no legal compulsion behind the guarantee. . . ." Inasmuch as only about one-third of all eligible workers are members of labor unions, the definition appears restricted. Snider also defines his yardstick for the appraisal of guaranteed plans with the statement that this "is an issue which transcends such economic considerations as maximizing output or profit. In judging its merits, one must also give attention to spiritual considerations, such as the peace of mind of wage earners and opportunities for the greater development of personality."

The first third of the book briefly describes the

famous Procter and Gamble, Hormel, and Nunn-Bush plans, with cursory description of plans in three smaller companies. Snider then discusses reasons why a number of guarantee plans have been discontinued. The following reasons are emphasized: excessive cost, social security laws, war conditions, union rules and attitudes, and insufficiency of the guarantee. On the basis of the cases and experience cited, Snider holds that 1) no single plan would work for all companies, 2) a successful plan should not guarantee more than the guarantor can give, 3) a plan should not have guarantees that are regarded as inadequate by the workers, 4) a plan should protect the company by providing an escape clause if unbearable financial strain develops, 5) as a requisite to success, any plan must have enthusiastic endorsement from both management and workers, and 6) successful guarantee plans have benefited both the participating companies and their workers, and have had beneficial effects upon suppliers, customers and the community.

In examining management's approach to the problem, Snider holds that American business in general could easily provide a considerable degree of employment security, provided certain conditions were met. These conditions include determination of probable minimum future labor requirements, accurate determination of risks, low proportion of wage costs to total costs, willingness and ability to sacrifice labor force flexibility because of rigidities induced by the guarantee, favorable prospects of company growth and expansion, and favorable worker reaction to the plan. Management should also consider means of setting aside reserves to pay wages when employees are idle.

Labor's approach to the problem is not uniform, since the AFL is less active in its support than the CIO. In general, Snider believes that labor unions should study the problems involved much more thoroughly than they have to date, should not press demands for unreasonable guarantees, should provide for a greater degree of flexibility of transfer of individual workers among different jobs, and should recognize long-run as well as short-run objectives of a guarantee plan. The first objective of labor should be to persuade employers to recognize a basic obligation toward labor with respect to employment security; after that emphasis can be shifted toward ways and means of effecting and improving the guarantee.

However, the argument continues, labor and management alone cannot provide a wide base of job security. Consumers must help promote employment stability by orderly contra-cyclical purchases of durable goods. The government must also contribute through control of the volume of private credit, a system of taxation designed to avoid "boom and bust," and through contra-cyclical government expenditures. Snider argues that "Ultimately, employment security should mean that everybody who wants a job should have one or be able to find one in a very short time, preferably in private industry, but if not there, then in government works . . . wage earners should have at least as much security as those who supply capital to industry." The indefinite and hence argumentative quality of Snider's definition is apparent.

Consumers would be expected to bear their share of

the added cost of guaranteed plans, according to Snider, and employers should add those costs to the sales price of their products. Firms unable to operate on this basis should close their doors. Since employers might not generally accept guaranteed plans on a voluntary basis, "it would be necessary to compel by law the setting up of the desired reserves." Finally, Snider argues that a strong government works program is essential to provide a sufficient number of jobs to meet his postulated long-range objectives. He prefers work programs over unemployment compensation since the former would contribute more to the total sum of available goods and services, and therefore he would relegate unemployment compensation to a very subordinate position. He argues that inadequate planning and administration of public works programs in the past can be avoided in the future, and concludes that "The basic soundness of government works as an offset to unemployment under the defined conditions should provide sufficient stimulus to make them administratively feasible."

Snider's proposals are likely to prove a strong, and perhaps bitter, prescription to many of his readers. He has taken a bold stand in advancing and defending the specific program outlined briefly in this little book. He is to be commended for attempting to encourage management and labor leaders to pause long enough to think through this vital problem, for job security is unquestionably currently regarded as one of the uppermost problems in the minds of most workers. Perhaps it is asking too much in an elementary survey volume to expect the author to present a wide range of considerations that could affect the program he advocates. But certainly more mention of certain major problems would appear to have been appropriate. Thus, for example, the problem of stabilizing consumer purchases in a free market society—the problems of reemploying workers in private industry when workers have almost immediate recourse to government work programs, with attendant repercussions upon the market cost-price structure—changes in the economy that might result from diversion of resources away from consumer goods, of the types usually offered in the market, to production of products and services offered in a government works program (post offices, highways, etc.)—these are some of the considerations that might well have received greater emphasis.

In conclusion, Snider's book, although it offers little that is new, is a convenient brief summary of experience with, and arguments concerned with, guaranteed wage plans. Its emphasis upon the need for serious investigation and consideration of guarantee programs by management and labor leaders is most appropriate. The argument and tract favoring the specific program advanced by the author is controversial, but certainly represents a viewpoint that must be considered by students of the problem. Many readers will probably be aroused by this volume to rebuttal, counter-argument, and much more discussion of the problem. The book's greatest long-run contribution might well be in this direction. It is definitely recommended reading for readers of this journal.

HERBERT G. HENEMAN, JR.

University of Minnesota

MEMBER PLACEMENT SERVICE

To assist in the placement of college and university teachers of accounting the American Accounting Association will publish notices of academic vacancies and of teachers available. This service is restricted to members of the Association and to institutions represented by membership. It is optional with university officials and members of the Association to publish names and addresses or to use key numbers.

Letters in reference to announcements published under key numbers should be sent to the office of the Secretary-Treasurer of the Association for forwarding to the persons concerned. Announcements to be placed should be sent to the Secretary-Treasurer by the tenth of the second month preceding month of publication. Address all correspondence to Clete Chizek, Secy.-Treas., American Accounting Association, School of Business, University of Chicago, Chicago 37, Illinois.

Vacancies Reported

SOUTHWESTERN UNIVERSITY, Georgetown, Texas, needs a teacher for advanced accounting and C.P.A. problems courses. Master's or Doctor's degree with some practical experience required. Rank and salary depend on qualifications. Address Dr. J. N. R. Score, President, Southwestern University, Georgetown, Texas.

EDGEWOOD JUNIOR COLLEGE, Edgewood, Rhode Island, has an opening for an advanced accounting teacher. Rank and salary depend on qualifications. Address Mr. Clark F. Murdough, President, Edgewood Junior College, Edgewood 5, Rhode Island.

THE UNIVERSITY OF PUERTO RICO has vacancies for accounting teachers, with salary and rank depending on qualifications. Address Dean Jose M. Laracuente, College of Business Administration, University of Puerto Rico, Rio Piedras, Puerto Rico.

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Teachers Available

ACCOUNTING, BUSINESS LAW, FINANCE: Man, 39. Married, two children. B.S., LL.B., M.A. Presently head of Department of Business Administration in small state college. Formerly Tax Specialist for large industrial corporation, Commissioner of Accounts, Revenue, and Finance in small city. Fifteen years college experience teaching above subjects. Available September 1. (M-101)

ADVANCED ACCOUNTING, MARKETING, RETAILING: Man; married; M.A. Eight years of teaching experience. Ten years of business experience in retailing and accounting. Prefer state institution. (M-102)

ACCOUNTING: Man; recent graduate University of Chicago; M.B.A. Presently employed as senior staff accountant with public accounting firm; also as accounting instructor. Available September 1. (M-103)

ACCOUNTING: Man, 39; M.A., C.P.A.; will consider another teaching position in a Middle-Western university; have eight years of college-university and three years of public accounting experience; minimum salary considered, \$5,000 for regular session. (M-104)

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